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LANCASHIRE
IN CONCILIO CONSILIUM
COUNTY COUNCIL

LANCASHIRE COUNTY COUNCIL.

EDUCATION COMMITTEE.

TWENTY-SECOND

ANNUAL REPORT

OF THE

County Medical Officer of Health

AND

School Medical Officer

FOR THE

YEAR ENDED 31st DECEMBER, 1930.

PRESTON:
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Sir T. S. Tomlinson, J.P.
Mrs. Horsfall
Mrs. Walton, J.P. (Deceased)

Director of Education:
P. E. Meadon, C.B.E., M.A.

MEDICAL STAFF.

(Jointly with the Public Health Department).

County Medical Officer of Health and School Medical Officer:

J. J. Butterworth, M.D., Ch.B., D.P.H.

Chief Assistant County Medical Officers:

R. H. W. Fisher, M.A., M.R.C.S., L R.C.P., D.P.H.
E. H. Scholefield, M.A., M.B., Ch.B., M.R.C.S., L.R.C.P., D.P.H.

Assistant County Medical Officers:

L. E. H. R. Barker, B.A., M.B., Ch.B., D.P.H.
R. J. Batty. B.Sc., M.B., Ch.B., D.P.H.
W. C. V. Brothwood, M.B., Ch.B., M.M., D.P.H.
Catherine L. Corbett, M.B., Ch.B., D.P.H.
A. C. Crawford, M.B., Ch.B., D.P.H., D.T.M.
S. C. Gawne, B.Sc., M.D., M.R.C.S., D.P.H.
Winniefred M. Gray, M.A., M.B., Ch.B., D.P.H.
F. Hall, M.D., Ch.B., D.P.H., B.L.
H. Holroyd, M.B., B.S., D.P.H.
Gladys H. Hutchinson, M.B., Ch.B.
J. R. Jagger, M.B., Ch.B., D.P.H
G. G. Johnstone, *M.C.*, M.A., M.D., Ch.B., D.P.H.
J. H. Porter, M.A., M.B., Ch.B., M.R.C.S., L.R.C.P., D.P.H.
A. V. Stocks, M.A., M.B., B.Ch., D.P.H.
J. A. Tomb, M.B., Ch.B., D.P.H.
A. Topping, M.A., M.D., Ch.B., D.P.H. (Resigned 30th Sept., 1930).
C. Robertson Wilson, M.B., Ch.B., D.P.H., (Appointed October, 1930).
J. G. Wilson, M.D., B.S., M.R.C.S., M.R.C.P., D.P.H.
G. G. Wray, M.D., Ch.B., D.P.H.
S. N. Wright, M.Sc., M.B., Ch.B., D.P.H.

Dental Surgeons:

R. Ackers, L.D.S.
H. J. Appleyard, L.R.C.P., L.R.C.S., L.D.S.
J. B. Davies, L.D.S.
F. J. W. Dewhurst, L.D.S.
R. E. Hodgson, B.D.S.
J. Kershaw, L.M.S.S.A., L.D.S.
W. A. Linnell, L.D.S.
T. G. Lloyd, L.D.S.
I. F. McAsh, L.R.C.P., L.R.C.S., L.D.S.
F. D. Manners, L.D.S.
E. V. Pollitt, L.D.S.
A. W. Poole, L.D.S.
T. H. Wignall, L.D.S.
F. W. Williams, B.D.S. (Appointed January, 1931).
A. Cleaver, L.D.S. (part-time)

Ophthalmic Surgeons (part-time):

E. Allan, M.B., Ch.B.
H. H. Bywater, M.D., Ch.B., D. Ch.O., F.R.C.S (Edin.).
O. M. Duthie, M.D., Ch.B.
G. A. Jelly, F.R.C.S., L.R.C.P., L.S.A., D.P.H.
N. MacInnes, M.A., M.B., Ch.B.
H. G. Parker, F.R.C.S.(Edin.), L.R.C.P., L.R.F.P.S.
J. F. Penman, M.B., Ch.B.
F. C. Plummer, M.D., Ch.B.
G. A. Renwick, M.B., Ch.M.
T. Snowball, M.A., M.B., Ch.B.
W. Sykes, L.R.C.P., L.R.C.S., L.R.F.P.S.
J. M. Wishart, M.B., Ch.B., F.R.C.S.(Edin.).

Honorary Consulting Orthopædic Surgeon:

Sir Robert Jones, Bart., K.B.E., C.B., F.R.C.S., LL.D., D.Sc.

Orthopædic Surgeons (part-time):

H. Platt, M.D., M.S., F.R.C.S.
T. P. McMurray, M.Ch., F.R.C.S.(Edin.).

Assistant Orthopædic Surgeons (part time).

E. S. Brentnall, M.B., F.R.C.S.(Edin.).
B. L. McFarland, M.D., M.Ch. (Orth.)., F.R.C.S.(Edin.).
S. M. Milner, M.A., M.B., F.R.C.S.
H. Poston, M.B., M.Ch.

School Nurses and Health Visitors:

Mrs. M. Ashton
Miss S. Beach
Mrs. M. R. Beckett
Mrs. A. Birchall
Miss A. Canton
Mrs. E. Chambers
Miss E. Cubbin
Mrs. A. Dewhurst
Mrs. H. M. Dewhurst
Miss H. Dickinson
Miss M. G. Dickinson
Miss M. Dudley
Miss P. E. Dunn
Miss M. E. Evans
Miss M. Fawcett
Miss A. E. Fry
Mrs. S. Gray
Miss L. M. Hartley
Miss F. M. Heseltine
Mrs. M. A. Hilton
Miss S. N. Hodgson
Mrs. M. C. Hoey (Died February, 1931).
Miss A. Holmes
Miss E. Hughes (Appointed May, 1931)
Miss G. M. Hughes
Mrs. W. Hutchinson
Miss A. D. Irving
Miss M. Kennedy
Miss E. Knowles
Miss M. Lamb
Miss E. M. Lawley
Miss C. E. Laycock
Miss A. Lynch
Miss M. MacDonald
Miss E. Mares
Miss M. R. McLean
Miss G. Menzies
Miss I. Milne
Miss A. I. Murphy
Mrs. B. Palin
Miss D. H. Procter
Mrs. L. Read
Miss A. Reeves
Miss D. Rigby
Miss M. Robinson
Miss E. Shaw
Miss M. Singleton
Miss G. Sizer
Miss A. Smith
Mrs. G. Smith
Miss M. E. Smith
Mrs. E. C. Stringer
Miss J. Tomkinson
Miss A. Townend
Mrs. F. M. Tregarthen
Miss F. M. Unsworth
Miss I. Valentine
Miss E. A. Walker
Miss A. Walters
Miss J. M. Webster
Miss G. J. Wellard
Miss S. E. Wright

Orthopædic Nurses:

Mrs. E. J. Bromley
Miss E. H. Elkington
Mrs. F. Worrall.

BIDDULPH GRANGE ORTHOPÆDIC HOSPITAL.

Senior House Surgeon:

Barbara M. Knight, M.B., Ch.B., D.P.H. (Resigned January, 1931).
Brenda G. Hallett, M.R.C.S., L.R.C.P., F.R.C.S.(Edin.), (Appointed Feb. 1931).

Junior House Surgeon:

Moya McAfee, M.B., B.Ch., B.A.O. (Resigned July, 1930).
Helen M. Dick, M.B., Ch.B. (Appointed August, 1930).

Matron:

Miss M. Rochell.

LANCASHIRE

COUNTY COUNCIL.

LANCASHIRE EDUCATION COMMITTEE.

SCHOOL MEDICAL SUB-COMMITTEE.

TWENTY-SECOND
ANNUAL REPORT
OF THE
COUNTY MEDICAL OFFICER OF HEALTH
AND
SCHOOL MEDICAL OFFICER,

For the Year ended 31st December, 1930.

ADMINISTRATION.

The area of the Administrative County of Lancaster for Elementary Education purposes is 941,751 acres, and the population is 964,280, of whom the average number on the Roll of Elementary Schools is 128,595, and the average number in attendance is 113,618 ; the average attendance in the previous year was 112,830.

For Higher Education and General Purposes the population is 1,812,800, while for Child Welfare purposes it is 771,674.

The following districts are autonomous for Elementary Education purposes and, therefore, do not come within the scope of this Report except for Higher Education :—

Nineteen Municipal Boroughs ;

The Urban Districts of Chadderton, Farnworth, Hindley, Ince-in-Makerfield, Radcliffe, Stretford, Swinton and Pendlebury, and Waterloo-with-Seaforth.

The combined population of these Boroughs and Urban Districts is estimated to be 848,520.

In the Administrative County there are 683 schools, composed of 536 voluntary and 147 council schools, in which there are 918 Departments. Of these 683 schools, 302 are classed as Rural schools, and the remaining 381 as Urban schools. Many of the schools in the rural districts are a considerable distance away from the nearest railway station.

During the year Dr. A. Topping resigned his post on being appointed Medical Officer of Health for the County Borough of Rochdale, and takes with him the good wishes of his colleagues and subordinates.

Dr. C. Robertson Wilson has been appointed to the vacancy.

The work of the Staff was interrupted by the sickness of some of its members and by increased work entailed by passing into law of the Local Government Act, 1929.

CO-ORDINATION OF THE WORK OF THE SCHOOL MEDICAL SERVICE WITH THAT OF OTHER HEALTH SERVICES.

The School Medical Officers are also Assistant County Medical Officers, their work bringing them into frequent touch with local Medical Officers of Health and with General Practitioners. Consultations on infectious disease are frequent with respect to diagnosis and administrative action, and when these consultations are requested response is now immediate owing to the greater facilities enjoyed by the Medical Officers in the use of motor cars which have, therefore, acted as a valuable ally in the prevention of disease.

The School Nurses are also Health Visitors and in this capacity deal with the notifications of births and the following up of infants and toddlers. They have had their work somewhat increased by the Local Government Act, 1929, as upon them has been placed the duty of the inspection of children taken for reward under Part I. of the Children Act—a duty which was previously performed by the Boards of Guardians. Much of their time is taken up in investigating home and economic circumstances of those who apply for free milk at Child Welfare Centres, or for admission to Maternity Homes, or in cases of those recommended for hospital treatment under Orthopædic Schemes. Each Nurse is in touch with the Relieving Officer or the Clerk to the Guardians' Committee of her area, so that complete information is available on both sides of the amount of relief granted, whether under the Poor Law or under the Maternity and Child Welfare Act, or under the Education Act. There are 61 School Nurses and Health Visitors and their means of locomotion vary according to the character and extent of their districts. Here again efficiency is considerably increased through the use of motor transport.

The following table shows the work done by the Nurses as Health Visitors during the year 1930 :—

HOME VISITS—	
(*Infants under one year*)—	
No. of 1st Visits	10,520
No. of Re-visits	42,421
(*Children 1—5 years of age*)—	
No. of Visits	34,143
ANTE-NATAL WORK—	
(*Expectant Mothers*)—	
No. of 1st Visits	2,276
No. of Re-visits	2,472
OTHER VISITS—	
Special Visits to Older Children, Medical Officers of Health, &c.	1,381
VISITS TO CASES OF OPHTHALMIA NEONATORUM AND OTHER MATTERS.	238
VISITS TO CASES UNDER CHILDREN ACT, 1908 (Part I.)	230

During the year 4 new Child Welfare Centres were opened and the list of those which have been established to date is as follows :—

Abram
Adlington
Aspull
Atherton
Audenshaw
Bamber Bridge
Barrowford
Barton
Billinge
Blackrod
Briercliffe
Bromley Cross
Burtonwood
Carnforth
Catforth
Chipping
Church
Clayton-le-Moors
Clifton
Coppull
Crompton
Dalton-in-Furness
Davyhulme
Droylsden
Feniscowles
Fleetwood (2)
Flixton
Haydock
Irlam (2)
Kearsley
Kirkham
Leyland (2)
Litherland
Littleborough
Little Lever
Longridge
Milnrow
Morecambe
Norden
Ormskirk
Orrell
Oswaldtwistle (2)
Padiham
Poulton-le-Fylde
Preesall
Prescot
Rishton
Skelmersdale
Standish
Thornton-le-Fylde
Tottington
Trawden
Ulverston
Urmston
Walkden
Waterloo
Whalley
Whitefield
Whitworth

With the exception of Morecambe the County Council is also the Education Authority in the districts where these Centres have been established. The Assistant County Medical Officers are, as a rule, in charge of these Centres, but in a few cases the local Medical Officers of Health are still in charge of the Centres.

In the following districts the Child Welfare and Maternity work is done by the local district Sanitary Authority :—

Ashton-in-Makerfield
Brierfield
Denton
Golborne
Great Harwood
Horwich
Newton-in-Makerfield
Prestwich
Ramsbottom
Royton
Tyldesley
Upholland
Westhoughton

In these districts the County Council is the Authority for Elementary Education.

The Voluntary Helpers still continue to assist with the social work which is carried on at the Centres, and the County is very grateful to these women who give up so much of their time in helping the smooth administration of what is very often an extremely busy Centre.

Instruction in Mothercraft still continues at certain of the Centres on the lines previously described in other Reports.

The following table gives a statistical summary of the work done in the Centres during the past year :—

SUMMARY OF ATTENDANCES, &C., AT CHILD WELFARE CENTRES DURING THE TWELVE MONTHS ENDED 31ST DECEMBER, 1930, TOGETHER WITH THE NUMBER OF BIRTHS NOTIFIED DURING THAT PERIOD.

Name of Child Welfare Centre.	No. of Times Open.	No. of Births Notified during the 12 months.	No. of individual children attending.			No. of attendances by children.			No. of attendances by expectant mothers.		No. of attendances by other women.	
			Under 1 year old.	From 1—2 years old	Over 2 years old.	Under 1 year old.	From 1—2 years old	Over 2 years old.	No. of individual expectant mothers attending.	No. of actual attendances.	No. of individual women attending.	No. of actual attendances.
Abram	24	107	107	64	58	741	443	423	26	63	9	22
Adlington	47	57	85	54	75	926	595	1048	16	128	43	115
Aspull (New Springs) ...	48	140	165	97	42	1955	991	356	54	228	10	107
Atherton	45	292	256	129	50	2117	776	221	48	203	2	9
Audenshaw	48	126	149	82	82	1623	540	386	17	74	11	70
Bamber Bridge ...	48	83	114	53	98	824	292	600	18	67	102	346
Barrowford	48	49	77	41	43	667	125	125	3	7	27	128
(*a*) Barton	8	6	12	9	25	37	10	51	...	...	9	58
Billinge	48	61	58	34	51	660	310	206	19	91	10	12
Blackrod	48	44	40	26	24	422	226	175	8	56	10	96
Briercliffe	23	15	31	36	...	258	113	197	...	...	16	24
Bromley Cross ...	47	21	124	61	101	1127	235	231	25	89	7	8
Burtonwood	48	43	31	16	7	421	134	27	5	32	2	5
(*b*) Catforth	8	9	25	16	26	66	33	60	1	2	9	28
(*c*) Chipping	22	19	26	21	16	148	122	51	6	34	16	68
Church	47	79	99	42	43	1228	475	261	9	70	12	189
Clayton-le-Moors ...	46	97	79	45	30	974	328	211	13	96	26	306
Clifton	47	29	45	19	17	704	265	289	2	6	...	...
Coppull	47	82	98	74	90	1061	730	805	16	54	...	...
Crompton	45	160	142	68	65	1401	677	477	12	32	2	3
Dalton-in-Furness ...	48	95	206	108	138	1584	730	850	70	370	...	...
Davyhulme	44	45	61	31	25	561	327	203	9	48	20	75
Droylsden	48	185	260	126	83	3415	1076	513	17	69	13	149
Feniscowles	46	10	45	25	23	374	210	152	5	39	11	48
Fleetwood (No. 1) ...	48	502	166	83	109	1630	633	790	9	33	17	48
Fleetwood (No. 2) ...	48		305	136	144	3033	984	917	18	102	...	...
Flixton	44	124	146	75	98	1909	768	620	24	158	20	217
Haydock	48	187	125	37	16	1118	330	61	8	61	1	1
Irlam	24	226	139	29	18	1054	284	169	8	18	40	308
Irlam (Long. Ldge.) ...	24		124	43	21	1035	330	178	6	16	34	308
Kearsley	48	122	191	104	97	2403	1040	320	42	240	6	9
Kirkham	48	60	131	78	48	1362	511	321	3	28	10	95
Leyland (Brad. St.) ...	25	137	23	21	23	144	125	239	4	13	20	301
Leyland (Quin St.) ...	46		120	47	75	1276	517	961	12	96	20	469
Litherland	48	226	195	72	109	1594	335	437	23	60	...	...
Littleborough	48	184	220	119	91	2097	797	456	16	55	20	112
Little Lever	49	84	106	36	29	1204	221	188	13	58	52	118
Longridge	46	52	120	70	63	1014	382	269	9	59	12	413
Milnrow	48	84	111	72	62	1198	563	431	10	68	12	99
Morecambe	47	268	199	88	96	1328	787	615	31	130	...	...
Norden	48	39	80	43	50	1074	628	530	10	74	20	177
Ormskirk	47	145	126	58	66	1181	587	607	20	105	...	...
Orrell	46	99	111	66	55	1176	586	307	15	68	1	9
Oswaldtwistle	46	174	135	48	55	908	408	852	22	88	43	400
Oswaldtwistle (Belthorn)	4		8	4	3	18	8	4	...	...	21	43
Padiham	48	156	123	57	42	864	285	279	5	15	21	36
Poulton-le-Fylde ...	24	19	53	47	65	339	299	521	11	48	31	45
Prescot	75	166	314	137	141	1938	449	510	65	185	20	55
Rishton	48	87	74	37	28	731	183	163	5	35	11	148
Skelmersdale	48	96	77	44	46	760	263	342	8	43	20	159
Standish	48	106	117	65	89	1244	547	865	25	136	68	202
Thornton	48	165	136	73	80	1090	545	522	22	149	30	167
Tottington-le-Fylde ...	48	95	78	40	51	701	391	320	12	47	10	45
(*d*) Trawden	48	19	38	32	30	280	271	105	2	2	28	46
Ulverston	48	148	173	113	139	1493	926	1117	51	312	...	...
Urmston	48	165	105	55	47	1354	416	306	10	57	56	128
Walkden	48	108	168	59	21	1493	318	70	2	3	59	156
Waterloo	26	33	70	47	24	569	265	144	2	11	22	35
Whalley	48	22	53	40	41	577	232	274	8	33	53	113
Whitefield	44	110	216	92	63	1914	807	302	6	13	...	...
Whitworth	47	121	121	57	35	1094	515	541	13	69	49	118
TOTAL	2602	6183	7132	3601	3482	68301	27299	23571	949	4546	1194	6446

(*a*) Barton Child Welfare Centre opened 7th May, 1930.
(*b*) Catforth Child Welfare Centre opened 19th May, 1930.
(*c*) Chipping Child Welfare Centre opened 8th January, 1930.
(*d*) Trawden Child Welfare Centre opened 8th January, 1930.

Owing to the serious unemployment in this part of the country there has been a large increase in the amount of milk or milk products supplied free at the Welfare Centres to necessitous nursing mothers, women in the last few months of pregnancy, infants and young children. The sum allowed for in the estimates was £8,000, and the amount actually spent £9,700. The conditions under which a free supply is given are those of medical necessity coupled with the inability to purchase the necessary foodstuffs.

During the year 1930 717,353 pints of fresh milk were supplied directly to the recipients by milk purveyors, being an increase of 88,821 pints on the previous year, and the following tabular statement shows the amount of dried milks, cod liver oil, Virol, etc., supplied at the Centres :—

No.	Units.	Article of Foodstuff.	Cost. £	s.	d.
35,293	1 lb. packets	Cow and Gate	2,647	12	7
16,047	1 lb. cartons	C.L.O. and Malt	568	1	3
12,888	8 oz. tins	Virol	644	8	0
11,515	1 lb. tins	Ostermilk	873	17	8
4,832	1 lb. bottles	Horlick's Malted Milk	608	13	8
3,892	1 lb. packets	Glaxo	295	4	8
3,888	1 lb. packets	Ambrosia	295	6	0
3,113	8 oz. tins	Ovaltine	211	11	7
1,879	4 oz. bottles	Cod Liver Oil	39	0	0
1,583	7 oz. tins	Virolax	80	8	11
1,423	8 oz. and 1 lb. bottles	C.L.O. Emulsion	94	17	6
1,019	1 lb. packets	Trufood	90	0	10
609	4 & 8 oz. bottles	Aberdeen Emulsion	22	19	1
503	8 oz. tins	Ostelin and Malt	20	3	1
499	1 lb. jars	Vitamalt	33	9	11
447	4 oz. tins	Lactagol	26	7	5
119	1 lb. tins	Almata	11	17	2
81	1 lb. tins	Milkal	6	7	0
77	1 lb. tins	New Zealand Cream	8	17	6
27	1 lb. cartons	Vitamine Malt	1	6	0
		Total cost	£6,580	9	10

In this statement most of the foods mentioned are sold at cost price. In necessitous cases the food is supplied either free of cost or at half-price. The total loss on the foods supplied amounted to £1,266 7s. 2d., as compared with a total loss in the previous year of £1,032 10s. 5d.

The Irlam Ante-natal Clinic was closed during the year, arrangements having been made with the Eccles Municipal Borough Authority so that cases from the adjacent portion of the County could attend at the centre recently established in Eccles.

Similar arrangements are in force for the districts surrounding Chorley and Widnes. In the rest of the County expectant mothers may be seen by the Assistant County Medical Officers at Child Welfare Centres, but the development of this work is somewhat retarded owing to the financial strain which a comprehensive Maternity Service and Ante-natal Scheme would put on the funds of this Authority.

There is no doubt that an efficient Ante-natal Service is one of the most pressing needs at the present day. The subject is one which, in connection with the Report on Maternity Mortality by the Departmental Committee, has engaged the attention of the County Medical Officer. The difficulties in the way of forming a complete Scheme are not only financial but, to a certain extent, professional. It is hoped that with further developments rendered possible by the taking over of the old Poor Law Hospitals, a comprehensive Maternity Scheme involving an efficient Ante-natal Service may ultimately eventuate.

OPHTHALMIA NEONATORUM.

All cases of Ophthalmia Neonatorum are under observation and care from the onset, and of late years there has been a welcome reduction in the number of those cases which become blind ultimately.

Year.	Total number of Eye Cases reported to the Local Supervising Authority under the Midwives Acts.	Total number of cases notified as Ophthalmia Neonatorum.
1924	328	154
1925	299	147
1926	344	172
1927	381	211
1928	366	191
1929	354	164
1930	312	169

The duty of Midwives to report cases of Ophthalmia remains unaltered, the Midwives Act Committee of the County Council being the local Supervising Authority for this purpose.

The Assistant School Medical Officers in their capacity as Assistant Medical Officers of Health undertook during the year the inspection of 62 Maternity Homes, the results being reported to the Public Health Department of the County Council.

The following Boroughs and Urban Districts supervise the Maternity Homes in their respective districts :—

Accrington (B.)
Ashton-under-Lyne (B.)
Bacup (B.)
Chorley (B.)
Clitheroe (B.)
Colne (B.)
Darwen (B.)
Eccles (B.);
Heywood (B.)
Lancaster (B.)
Leigh (B.)
Lytham Saint Annes (B.)
Middleton (B.)
Morecambe and Heysham (B.)
Nelson (B.)
Rawstenstall (B).
Stretford U. D.
Swinton and Pendlebury U. D.

The service for the actual confinement of women has continued to expand. During the past year the amount paid in Doctors' fees in cases where the Midwives summoned help was £4,245 12s. 0d., of which £518 8s. 0d. is estimated to be recoverable from the patients. Arrangements are in force for receiving pregnant women, in cases where there is any difficulty, present or anticipated, or where the surroundings at home are not suitable for a confinement, at the following institutions :—

Ashton-under-Lyne Infirmary.
Blackburn Corporation (Springfield) Maternity Home.
Blackpool Corporation Maternity Home.
Bolton Corporation (Haslam) Maternity Home.
Bolton Union Townley's Hospital.
Bootle Corporation Maternity Home.
Burnley Corporation (Bank Hall) Maternity Home.
Chorley Hospital.
Chorley Public Assistance Institution.
Colne Hospital (Corporation).
Fulwood Sharoe Green Union Maternity Home.
Leigh Corporation (Stone House) Maternity Home.
Liverpool Maternity Hospital.
Liverpool St. Hilda's Diocesan Maternity Home.
Lytham Hospital.
Nelson Corporation (Fern Lea).
Oldham Corporation (Greenacres).
Preston Royal Infirmary.
Radcliffe Corporation (Bealey).
Rochdale Union, Birch Hill.
Stretford Memorial Hospital.
Warrington Corporation (Borough General—Whitecross).
Warrington Corporation (Latchford).
Whiston Infirmary.
Widnes Ethel Gossage Maternity Home.

During the past year the total number of women so admitted was 175. This compares with 145, 56, and 51 for the previous three years. In each case an enquiry is made by the Health Visitor into the economic and sanitary circumstances. During the year the payment for these patients amounted to £1,433 2s. 8d., of which £578 15s. 9d. was recovered from the patients.

The following table shows the rate of infant mortality, per thousand births which has taken place in recent years in the Administrative County :—

1913 ...	124	1922 ...	85
1914 ...	112	1923 ...	80
1915 ...	119	1924 ...	81
1916 ...	99	1925 ...	82
1917 ...	96	1926 ...	80
1918 ...	100	1927 ...	73
1919 ...	93	1928 ...	69
1920 ...	91	1929 ...	84
1921 ...	88	1930 ...	64

THE CARE OF DEBILITATED CHILDREN UNDER SCHOOL AGE.

There has been no change in the method of caring for these children since the last report was issued. They can be inspected and treated at Child Welfare Centres, School Clinics, Orthopædic Clinics, Ophthalmic Clinics, Dental Clinics, and at hospitals for the operative treatment of tonsils and adenoids. They are usually seen by the School Nurses and Health Visitors in the course of home visits, and in the mining and manufacturing districts many of them are to be found in school from the age of three onwards.

During 1930 the School Nurses visited 15,527 separate homes and as Health Visitors made 93,681 visits to homes, and during this year 3,482 children between two and five years of age made 23,571 attendances at the Child Welfare Centres.

Children under the age of three years, and, in exceptional circumstances, from three to five years, can be provided under the County Council Maternity and Child Welfare Scheme with fresh or dried milk, cod liver oil, or Virol, at cost price, less than cost price, or free, when they are certified by the Medical Officers in charge of the Child Welfare Centres to require extra nourishment.

During the last financial year a sum of £9,700 was so spent on these children.

In districts where the County Council is the Authority which is responsible for Maternity and Child Welfare, no difference is made in practice in the facilities provided for the care and treatment of school children and for those under school age.

Dental treatment is available for expectant and nursing mothers and for children under school age.

SCHOOL PLAYGROUNDS.

The improvement in the surface of playgrounds continues; but some playgrounds still exist, particularly in non-provided schools, where the surface, if not a positive danger to the children, is in a most deplorable condition and makes the task of keeping the schools clean one of insuperable difficulty.

Playing fields are now provided in connection with all new schools in accordance with the policy of the Education Committee as previously described in last year's Report.

SCHOOL HYGIENE.

On the occasion of every routine inspection, and at other times when necessary, the Medical Officers submit a report on any defects noted by them with regard to cleanliness, heating, lighting, ventilation, water supply, equipment, and condition of lavatory basins and latrines. In these days of financial stringency it is almost impossible for some of the voluntary schools to put their buildings into perfect order, but much can be done, and should be done, to ensure that ordinary cleanliness forms part of the routine of every scholar and school. It should not be left entirely to the caretaker to see that rooms are spotless. The children themselves, exhorted by an enthusiastic teacher, can, and frequently do, attend to such matters as dusting, removal of litter, and general tidiness of a room. They also, where the appliances are not too cumbersome, assist in regulating the ventilation, thus taking a practical part in the teaching of hygiene.

A distinct improvement has been noticed in some schools where "sweeping powders" supplied by certain commercial firms are in use. The caretakers are instructed in the correct use of the brush and powder, and the net result is a diminution of dust with correspondingly increased comfort for all who have to spend an appreciable part of their time in the school.

The question of supplying warm water for washing purposes and heating arrangements for drying clothes in the older schools is still in abeyance, but in the newer schools an endeavour is made to supply these much needed hygienic requirements. The following table shows the improvements which have been carried out during the year :—

District No.	Name of School.	Particulars of Improvements.
1	Cartmel Fell C.E.	Reflooring.
	Colton, Finsthwaite C.E.	Reflooring.
	Coniston C.E.	Installation of electric light in Infants' Department.
	Dalton-in-Furness, Askam Senior Council	Reflooring and enlargement of doorway.
	Dalton-in-Furness Broughton Road Council	Provision of hoppers, renewal of lavatory basins and alterations to offices.
	Dalton-in-Furness Chapel Street Council	Reflooring and alterations to offices.
	Dalton-in-Furness, Lindal and Marton Council	Reflooring and improved lighting.
	Ulverston Dale Street Council	Reflooring and improved gas lighting.
	Ulverston, Sandside Council	Reflooring. Provision of folding partition and window in Infants' Department.
	Cartmel Special Subjects Centre	Reflooring.
	Satterthwaite and Rusland	Provision of new cloakroom, windows, etc.
2	Leck C.E.	Reflooring.
	Silverdale	Provision of tank to improve water supply.
	Whittington C.E.	Reflooring.
	Carnforth C.E. (Mixed)	Reflooring.
	Ellel, Dolphinholme	Reflooring.
3	Stalmine Council	Reflooring and improved lighting.
	Hambleton Council	Reflooring and improved lighting.
	Nether Wyresdale, Scorton R.C.	Provision of cloakroom accommodation.
4	Fleetwood St. Mary's R.C.	Renewal of staircase.
	Thornton Cleveleys Beach Road C.	Provision of water cisterns.
5	Marton Moss C.E.	Reflooring.
	Ribby-with-Wrea Endowed	Installation of electric light.
6	Fulwood and Cadley C.E.	Installation of electric light.
	Woodplumpton, Catforth Council	Installation of electric light.
7	Penwortham Cop Lane	Reflooring.
	Penwortham Middleforth C.E.	Reflooring and installation of electric light.
	Howick C.E.	Installation of gas lighting and improvement of playground surface.
	Samlesbury C.E.	Improvement to ventilation and refixing partitions.
	Farington Endowed	Improvement to playground surface.
8	Downham	New hopper windows.
9	Great Harwood St. John's C.E.	Reflooring.
	Clayton-le-Moors C.E.	Reflooring.
	Clayton-le-Moors St. James' C.E.	Reflooring.
	Oswaldtwistle Hippings Wesleyan	Reflooring.
	Oswaldtwistle New Lane C.E.	Improvements to gas lighting.
10	Livesey, Cherry Tree C.E.	Reflooring and provision of lavatory basins.
	Salesbury	Improvement to playground surface.

District No.	Name of School.	Particulars of Improvements.
12	Barrowford Central Council	Renewal of water mains.
13	Padiham Wesleyan	Reflooring.
	Padiham St. Matthew's C.E.	Reflooring.
	Dunnockshaw Council	Reflooring.
	Higham C.E.	New gas fittings.
14	Withnell St. Joseph's R.C.	Installation of electric light.
	Adlington St. Paul's C.E.	Installation of electric light.
	Wheelton Council	Installation of electric light.
	Wheelton C.E.	Provision of additional windows.
15	Leyland Wesleyan	Installation of electric light.
	Brindle Gregson Lane	Reflooring.
16	Ormskirk St. Anne's R.C.	Reflooring.
	Bispham (Ormskirk) Free Grammar	Reflooring.
	Mawdesley C.E.	Reflooring and renewal of lavatory basins.
	Skelmersdale Council	Renewal of lavatory basins and alteration of trough closets to W.C.'s.
18	Standish-with-Langtree, Standish Girls' and Infants'	Improvement to playground surface.
	Wrightington Appley Bridge Infants'	Installation of electric light.
	Wrightington St. Joseph's R.C.	Renewal of lavatory basins.
19	Upholland Roby Mill C.E.	Installation of electric light.
	Upholland Infants'	Installation of electric light.
	Upholland Moor C.E.	Installation of electric light.
	Upholland Village Mixed	Installation of electric light.
	Orrell, Holgate Council	Installation of electric light.
	Ashton-in-Makerfield Evans' C.	Provision of two movable partitions.
	Ashton-in-Makerfield St. Peter's Mission C.E.	Reflooring.
	Ashton-in-Makerfield, Stubshaw Cross C.E.	Reflooring.
	Abram C.E.	Reflooring.
20	Turton, Eagley Mill	Installation of electric light.
	Turton, Edgworth Hob Lane C.	Installation of electric light.
21	Horwich Holy Family R.C.	Reflooring.
	Horwich Our Lady of the Rosary R.C.	Renewal of staircase.
	Westhoughton Parochial	Reflooring.
	Westhoughton, Wingates St. John's C.E.	Reflooring.
	Westhoughton Fourgates Council	Installation of electric light.
22	Kearsley West Council	Erection of screen in offices.
	Kearsley Mount Wesleyan	Reflooring.
	Little Hulton St. John the Baptist	Reflooring.
	Little Hulton, Wharton Presbyterian	Reflooring.
	Little Lever Congregational	Reflooring.
	Little Lever C.E.	Reflooring.
23	Walmersley-cum-Shuttleworth, Buckhurst	New hopper windows.
	Ramsbottom Peel Brow Council	Removal of infants' gallery.
24	Tottington Green Mount	Reflooring.
	Tottington Wesleyan	Alteration to stage in main room and provision of lavatory basins.

District No.	Name of School.	Particulars of Improvements.
25	Prestwich Parish C.E.	Reflooring.
	Whitefield Higher Lane Council ...	Conversion of window into door.
26	Whitworth R.C.	Reflooring.
	Norden C.E.	Installation of electric light.
	Littleborough Summit Council ...	Installation of electric light.
	Littleborough Central Council ...	Removal of three galleries.
27	Crompton, East Crompton C.E. ...	Installation of electric light.
	Crompton Central Council	Platform extension.
	Royton Central Council	Platform extension.
28	Great Crosby, Halsall Girls' ...	Reflooring and installation of electric light.
	Litherland Beach Road Council ...	Renewals to gas fittings.
29	Rainford C.E.	Reflooring.
	Whiston C.E.	Reflooring and installation of electric light.
30	Haydock R.C.	Reflooring.
	Haydock C.E.	Improvement of gas lighting.
	Newton-in-Makerfield, Wargrave C.E.	Improvement of gas lighting.
	Winwick, Orford C.E.	Reflooring.
	Burtonwood Council	Extension of path round infants' school.
	Great Sankey Council	Reflooring and provision of two additional windows.
31	Atherton C.E.	Reflooring.
	Astley Gin Pits Wesleyan	Reflooring.
	Astley, Marsland Green	Installation of electric light.
	Tyldesley-cum-Shakerley, Tyldesley Council	Reflooring.
	Tyldesley-cum-Shakerley, Tyldesley Upper George Street Council	Reflooring.
32	Golborne R.C.	Installation of electric light.
33	Urmston English Martyrs' R.C. ...	Installation of electric light.
	Flixton Council	Installation of electric light.
35	Lees Zion United Methodist ...	Reflooring.
	Failsworth St. Mary's R.C. ...	Repairs to screens.
	Droylsden Moorside Council ...	Resurfacing of playground.
	Waterloo Council	Installation of electric light.

NOTE.—The item "re-flooring" is intended to cover either the whole school floor or a classroom.

ARRANGEMENTS FOR WARMING FOOD AND SERVICE OF MEALS IN SCHOOLS.

Nearly all schools have now facilities for making hot drinks and many of them have also facilities for warming any food which may be brought for the mid-day meal.

1.—Policy of the Committee.

In view of the isolated position of many of the Committee's schools and the comparatively long distances which some of the children attending such schools have to travel before they arrive, the Education Committee has endeavoured to arrange for facilities to be provided for these children to take their mid-day meal in school. The need for these facilities has been increased by the transfer of the older children in connection with the schemes of re-organisation in the County Area, and special attention has been given to the arrangement of suitable provision for meals. In addition, the provision of a hot drink, especially for younger children, in the winter months during the morning session, has become a matter of common practice and has tended greatly to the improvement of the health of these young children.

2.—Provision of Equipment.

In the new schools which are being built by the Committee a special kitchen is provided ; this kitchen contains a stove or oven, a sink, a boiler for hot water, a potato peeler and a drying rack for plates and dishes. Moreover, during the past six years 136 gas or oil cookers have been provided for the more outlying schools. In the new schools also, folding tables and chairs, crockery, cutlery and table-cloths are supplied. This enables the mid-day meal to be taken under satisfactory conditions, whether the food is brought from home to be heated at school, or whether arrangements are made for supplying a cooked meal at a small charge.

3.—Typical Provision of Meals.

The provision of a cooked mid-day meal is becoming increasingly common in the Committee's schools, and the organisation of these meals is highly creditable to the teachers, and is one of the most interesting developments of the school regime. It is usual to allow the working of the scheme to form part of the practical work of the older girls, who calculate the quantities of food required, do the necessary shopping, sell the dinner tickets, and keep accounts of all purchases and sales.

A paid woman cook is engaged. She prepares and cooks the dinner and washes the dishes after the meal. The cost of the meal varies from 3d. to 4½d. a day, and the proceeds are sufficient to pay the whole cost of the meal and generally to leave a small balance to meet replacements owing to breakages. The tables are set up and cleared away by the older boys in rotation ; they are laid and decorated with flowers and plants by the girls. Teams of senior boys and girls wait on the diners, and the whole is supervised by the teachers in turn.

The numbers taking these meals differ according to the size of the school, from 120 to 60, and it has been found that there has been no falling off in the numbers when a scheme has once been begun.

4.—Effect of Scheme.

These arrangements have been in every way successful ; children benefit greatly from the facilities provided, and the working of the scheme gives a practical bias to the instruction of the older girls and affords useful points of contact with other branches of the school work, such as Gardening and Arithmetic. The tasteful serving and conduct of the meal also gives opportunities for training in social manners and hygiene.

MEDICAL INSPECTION.

Arrangements for and Methods of Inspection.

The following Table shows the number of Schools, Departments, &c., on December 31st, 1930 :—

No. of Council Schools	147	
No. of Non-provided Schools	536	
Total number of Schools	——	683
No. of Departments in Council Schools	218	
No. of Departments in Non-provided Schools	700	
Total number of Departments	——	918
Accommodation		196,023
Average number on Roll		128,595
Average Attendance		113,618
No. of Teachers.		4,175

Owing to the illness of one of the Medical Officers there was some re-arrangement of the districts and for the greater part of the year the County was divided into 18 parts for the purposes of Medical Inspection, each Officer thus being responsible for an average number of about 7,000 children on the roll.

The routine groups examined are :—

(1) "Entrants," *i.e.*, those who first enter upon school life and whose ages are usually from 5—6 years.

(2) "Intermediates," *i.e.*, those who have attained the age of 8—9 years.

(3) "Leavers," *i.e.*, those of 12—13 years.

In addition to these routine groups there are "Specials" of other ages who are presented by Teachers, School Attendance Officers, Parents, or picked out by Medical Officers and Nurses for some special defect, and finally there are re-examinations of those found at a previous examination to need treatment or observation for a variety of defects.

Included in the groups of "Specials" or re-examinations are those children seen at School Clinics by the Medical Officers. Any parent who wishes to be present at the examination of his or her child may do so, but accommodation is limited, and, usually only those parents come who are sent for by the Medical Officer on the discovery of some defect which requires correction.

The following tables show the work done in Elementary Schools by the Assistant Medical Officers and Nurses during 1930:—

ROUTINE MEDICAL INSPECTION OF ELEMENTARY SCHOOLS.

No. of Schools visited		593
No. of Departments visited		796
No. of " Entrants " examined—		
Boys	6,517	
Girls	6,517	
		13,034
No. of " Intermediates " examined—		
Boys	6,909	
Girls	6,819	
		13,728
No. of " Leavers " examined—		
Boys	4,754	
Girls	4,820	
		9,574
No. of " Specials " examined—		
Boys	4,716	
Girls	4,928	
		9,644
No. of Children examined (" Entrants," " Intermediates," " Leavers," and " Specials ")—		
Boys	22,896	
Girls	23,084	
		45,980
No. of Children re-examined...		16,828
No. of Parents interviewed as part of the systematic inspection		5,041
No. of Homes visited		214

The above table refers only to the work done at routine medical inspections.

The following table shows the work done in Elementary Schools, etc., by the Medical Officers at visits other than routine visits :—

No. of Schools re-visited	680
No. of re-visits paid to schools	887
No. of children re-examined at re-visits to Schools, or at School Clinics	22,887
No. of "Specials" examined at re-visits to Schools, or at School Clinics	9,987
No. of parents interviewed at re-visits to Schools, or at School Clinics	10,262
No. of homes visited	540

The following table shows the work done in Elementary Schools by the Nurses ; it does not include visits or work done when they were accompanying the Medical Officers :—

No. of visits paid to schools	4,452
No. of children examined	186,715
No. of children verminous	9,033
No. of children with ringworm	347
No. of parents interviewed at school	1,176
No. of homes visited	15,527

The Register of Defective Children—cripples, blind, deaf and dumb, epileptics and mental defectives—has been kept up-to-date, and the Table will be found at the end of this Report.

The Teachers, Heads and Assistants, are extremely helpful in the work of Medical Inspection, and it may now be said that there are few instances in the whole County where the teachers do not take a great interest in the work and render valuable assistance by noting defects and giving what help they can to remedy them.

FINDINGS OF MEDICAL INSPECTION.

The following tables show the findings of the routine medical inspection, *i.e.* the formal and systematic inspection made annually of all the age groups prescribed by the Board of Education.

The first table shows in percentages the results of the inspection of these routine groups only :—

				Entrants. (Ages 3, 4, and 5.)		Inter-mediates. (Age 8.)		Leavers. (Ages 12, 13, and 14.)	
				Boys.	Girls.	Boys.	Girls.	Boys.	Girls.
		No. Examined		6517	6517	6909	6819	4754	4820
		Children having Defects		57·8	57·2	58·0	59·8	47·7	52·6
Mental Condition.		Dull and Backward	T	...	...	...	...	...	...
			O	1·0	0·6	1·9	0·9	1·5	0·7
		Feeble-minded	T	0·02	...	...	...	...	...
			O	0·1	0·05	0·2	0·1	0·08	0·08
		Imbeciles	T	...	...	...	...	...	...
			O	...	...	0·01	...	0·02	0·04
		Idiots	T	...	...	...	...	...	...
			O	...	...	...	...	...	...
		Malnutrition	T	0·2	0·2	0·2	0·2	0·1	0·2
			O	2·2	1·6	2·4	2·2	1·6	1·5
Unclean-liness.		Head	T	0·6	2·6	0·3	2·0	0·1	1·2
			O	1·2	6·2	1·0	8·8	0·4	6·7
		Body	T	0·5	0·6	0·3	0·4	0·2	0·3
			O	0·9	1·1	1·1	1·2	0·8	0·7
Skin.	Ring-worm.	Head	T	0·08	0·09	0·2	0·03	0·04	0·04
			O	0·02	0·02	...	0·03	...	...
		Body	T	0·03	0·03	0·03	0·04	0·02	...
			O	...	...	0·01	...	...	...
		Scabies	T	0·06	0·2	0·09	...	0·02	0·06
			O	...	...	...	...	...	...
		Impetigo	T	1·5	0·9	0·8	0·6	0·4	0·3
			O	0·3	0·2	0·1	0·2	0·1	0·08
		Other Diseases	T	0·7	0·7	0·9	0·9	0·6	0·9
		(Non-Tubercular)	O	0·8	0·8	0·6	0·5	0·8	0·8
Eye Diseases.		Defective Vision	SP	0·4	0·3	6·1	7·5	6·5	7·2
			O	0·4	0·5	5·9	7·2	5·7	6·9
		Squint	T	1·2	1·1	0·6	0·6	0·5	0·4
			O	1·0	1·0	0·8	0·9	0·6	0·5
		Conjunctivitis	T	0·2	0·09	0·2	0·2	0·2	0·2
			O	0·5	0·6	0·7	0·5	0·5	0·5
		Blepharitis	T	0·7	0·8	0·9	0·6	0·3	0·6
			O	0·5	0·5	0·6	0·7	0·5	0·6
		Keratitis	T	...	0·02	...	0·01	...	0·02
			O	...	...	...	...	...	...
		Corneal Opacities	T	0·02	0·02	...	0·03	0·02	...
			O	0·05	0·03	0·09	0·1	0·1	0·06
		Corneal Ulcer	T	0·02	...	...	...	...	...
			O	...	0·02	...	0·01	...	...
Ear Diseases.		Defective Hearing	T	0·2	0·2	0·3	0·3	0·3	0·2
			O	0·2	0·4	0·5	0·5	0·5	0·4
		Otitis Media	T	0·5	0·4	0·4	0·2	0·6	0·5
			O	0·09	0·06	0·2	0·07	0·1	0·1
		Other Ear Diseases	T	0·4	0·4	0·5	0·7	0·8	0·5
			O	0·1	0·2	0·2	0·2	0·2	0·3

				Entrants. (Ages 3, 4, and 5.)		Intermediates. (Age 8.)		Leavers. (Ages 12, 13, and 14.)	
				Boys.	Girls.	Boys.	Girls.	Boys.	Girls.
Nose and Throat.		Enlarged Tonsils	T	1·6	1·7	1·3	1·6	1·4	1·7
			O	11·8	12·8	11·1	11·9	9·0	10·9
		Adenoids	T	0·3	0·4	0·4	0·3	0·1	0·08
			O	1·0	0·9	1·0	0·8	0·6	0·4
		Enlarged Tonsils and Adenoids	T	1·7	1·7	1·5	1·3	0·8	0·8
			O	2·5	2·5	1·5	1·8	1·1	0·7
		Enlarged Cervical Glands (Non-Tubercular)	T	0·1	0·06	0·07	0·2	0·08	0·04
			O	12·7	11·1	10·7	8·8	6·7	4·6
		Defective Speech	T	0·02	0·06	0·03	0·01	0·02	...
			O	1·0	0·6	0·7	0·2	0·3	0·1
Teeth.		Four or more Carious	T	10·3	9·4	11·7	10·6	6·3	6·2
			O	13·0	12·6	9·6	9·1	2·9	3·6
		Sepsis	T	0·7	0·5	0·4	0·4	0·3	0·4
			O	0·3	0·2	0·2	0·06	0·02	0·02
Heart and Circulation.		Organic	T	0·02	0·02	0·03	0·06	0·06	0·06
			O	0·2	0·2	0·4	0·5	0·8	0·8
		Functional	T	...	...	0·03	...	...	...
			O	2·9	2·5	3·1	2·9	2·8	3·3
		Anæmia	T	0·1	0·1	0·06	0·04	0·1	0·08
			O	0·6	0·4	0·4	0·4	0·3	0·5
Lungs.		Bronchitis	T	0·5	0·8	0·09	0·2	0·2	0·1
			O	3·1	2·4	1·9	1·1	0·9	0·7
		Other Non-Tubercular Diseases	T	0·06	0·05	0·03	0·01	0·04	0·02
			O	1·0	0·8	0·7	0·5	0·3	0·3
Tuberculosis.	Pulmonary.	Definite	T	...	...	...	...	...	...
			O	...	0·02	0·01	...	...	...
		Suspected	T	...	...	...	...	0·04	0·02
			O	0·03	0·02	0·06	0·07	0·08	0·06
	Non-Pulmonary.	Glands	T	0·03	0·08	0·01	0·01	...	0·02
			O	0·03	0·05	0·09	0·06	0·04	0·04
		Spine	T	0·02	...	...	...	...	...
			O	0·02	...	0·01	...	...	...
		Hip	T	...	...	...	...	...	...
			O	...	...	0·01	...	...	...
		Other Bones and Joints	T	...	...	...	...	...	...
			O	...	0·03	0·01	...	0·02	...
		Skin	T	0·02	...	0·04	...	0·02	0·04
			O	...	...	0·01	0·01	0·02	...
Nervous System.		Epilepsy	T	...	0·02	0·03	0·01	...	...
			O	...	...	...	0·03	0·06	0·02
		Chorea	T	0·02	...	0·01	0·01	...	...
			O	0·05	...	0·09	0·06	0·02	0·04
		Infantile Paralysis	T	0·02	...	0·03	0·01	0·06	0·06
			O	0·02	0·06	0·1	0·06	0·06	0·02
		Rickets	T	0·1	0·2	0·06	0·04	0·04	...
			O	1·7	1·1	0·4	0·3	0·3	0·3
Deformities.		Spinal Curvature	T	0·02	0·05	0·04	0·07	0·08	0·06
			O	0·2	0·2	0·4	0·5	0·3	0·3
		Other Forms	T	0·7	0·9	0·7	0·9	1·8	1·6
			O	2·2	1·5	2·0	1·8	2·6	2·4
		Other Diseases or Defects	T	1·2	0·8	1·0	0·7	1·0	1·6
			O	1·9	1·3	1·9	1·8	2·6	4·1

In addition, there is also carefully examined a group of children who are known as "Specials." These children do not fall within one of the prescribed age groups, but are specially presented, either at the school or at the school clinic, as possibly having defects, by teachers, school attendance officers, parents, &c., or are picked out by the medical officer or nurse in a general inspection of the school. The number of "Specials" examined was 19,631.

The following table shows the results of the examination of the "Specials" in 1930 : –

Special Cases.

				Boys.	Girls.
		No. Examined		9933	9698
		Children having Defects		7111	7187
Mental Condition.		Dull and Backward	T	3	1
			O	102	56
		Feeble-minded	T	5	1
			O	20	10
		Imbecilcs	T	3	2
			O	3	1
		Idiots	T	...	1
			O	...	1
		Malnutrition	T	80	59
			O	336	311
Uncleanliness.		Head	T	40	149
			O	94	695
		Body	T	20	9
			O	28	38
Skin.	Ringworm.	Head	T	48	27
			O	...	2
		Body	T	39	28
			O	1	...
		Scabies	T	35	48
			O	...	...
		Impetigo	T	577	448
			O	37	31
		Other Diseases (Non-Tubercular)	T	581	473
			O	67	52
Eye Diseases.		Defective Vision	SP	577	655
			O	300	296
		Squint	T	125	90
			O	73	87
		Conjunctivitis	T	85	120
			O	50	48
		Blepharitis	T	161	168
			O	47	36
		Keratitis	T	16	12
			O	1	2
		Corneal Opacities	T	4	7
			O	6	9
		Corneal Ulcer	T	9	8
			O	...	3
Ear Diseases.		Defective Hearing	T	84	60
			O	42	36
		Otitis Media	T	186	167
			O	22	11
		Other Ear Diseases	T	91	68
			O	15	9

				Boys.	Girls.
Nose and Throat.		Enlarged Tonsils	T	151	180
			O	353	411
		Adenoids	T	40	46
			O	68	57
		Enlarged Tonsils and Adenoids	T	324	321
			O	166	171
		Enlarged Cervical Glands (Non-Tubercular)	T	41	62
			O	273	258
		Defective Speech	T	6	2
			O	44	16
Teeth.		Four or more Carious	T	325	312
			O	339	355
		Sepsis	T	44	44
			O	5	7
Heart and Circulation.		Organic	T	9	19
			O	67	67
		Functional	T	7	3
			O	345	256
		Anæmia	T	50	42
			O	31	44
Lungs.		Bronchitis	T	109	87
			O	126	92
		Other Non-Tubercular Diseases.	T	14	11
			O	26	22
Tuberculosis.	Pulmonary.	Definite	T	1	1
			O	...	...
		Suspected	T	6	6
			O	11	12
	Non-Pulmonary.	Glands	T	19	11
			O	17	11
		Spine	T	1	1
			O	...	1
		Hip	T	1	1
			O	...	...
		Other Bones and Joints	T	...	3
			O	1	1
		Skin	T	5	4
			O	1	...
Nervous System.		Epilepsy	T	9	5
			O	3	6
		Chorea	T	34	32
			O	21	24
		Infantile Paralysis	T	10	7
			O	11	8
		Rickets	T	13	11
			O	117	49
Deformities.		Spinal Curvature	T	9	10
			O	29	32
		Other Forms	T	109	116
			O	117	100
		Other Diseases or Defects	T	927	843
			O	327	336

In addition to the children who were examined at routine, &c., inspections. and whose defects are classified in the preceding tables, the Medical Officers re-examined 39,715 children who had been found defective at previous inspections. They also paid 887 re-visits to schools. The classification of these children into age groups or defect categories would serve no useful purpose, and has, therefore, not been made.

REVIEW OF FINDINGS.

The percentages shown in the following graphs are those for both treatment and observation, unless otherwise mentioned, found amongst all routine cases, and have, therefore, the defect pertaining in general to crude rates.

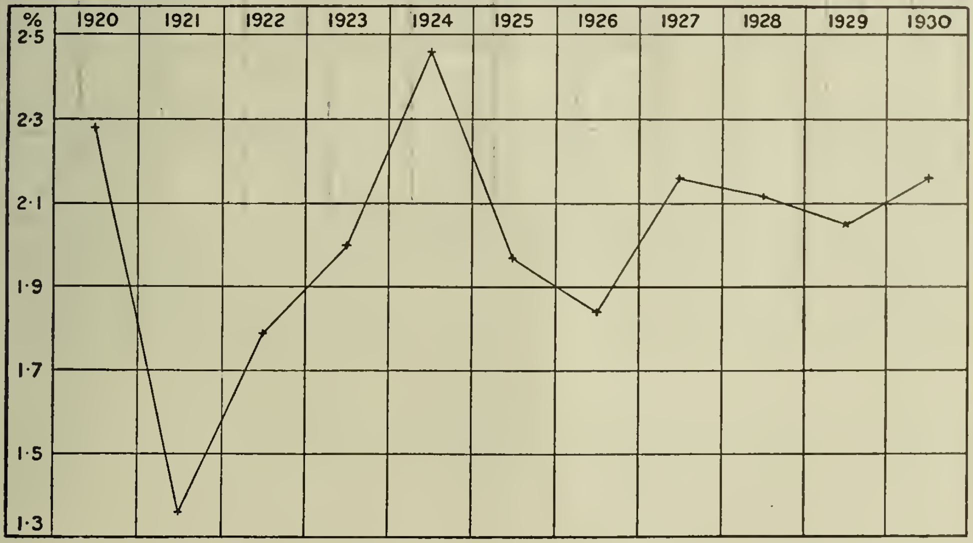
MALNUTRITION.

The percentage has slightly increased during the year to 2·16 for all routine cases, but the increase is so slight that it can be said with some confidence that the condition of the children, as regards nourishment, is practically no worse than during times of prosperity. School feeding took place during the year on the same scale as during the previous year, the amount spent being about £20,000, and the numbers fed approximating to 3 per cent. of the average attendance throughout the County. The selection of cases is still on an economic basis; an increased responsibility, therefore, being thrust upon the Local Area Clerks with their staffs of Assistant Clerks and School Attendance Officers.

The percentages for the years 1920-1930 are amongst Routine cases only, and are those of the grosser degrees of under-nourishment.

Year.	%
1920	2.28
1921	1·36
1922	1·81
1923	2·0
1924	2·46
1925	1·97
1926	1·84
1927	2·16
1928	2·12
1929	2·05
1930	2·16

GRAPH I MALNUTRITION – ROUTINE CASES



UNCLEANLINESS.

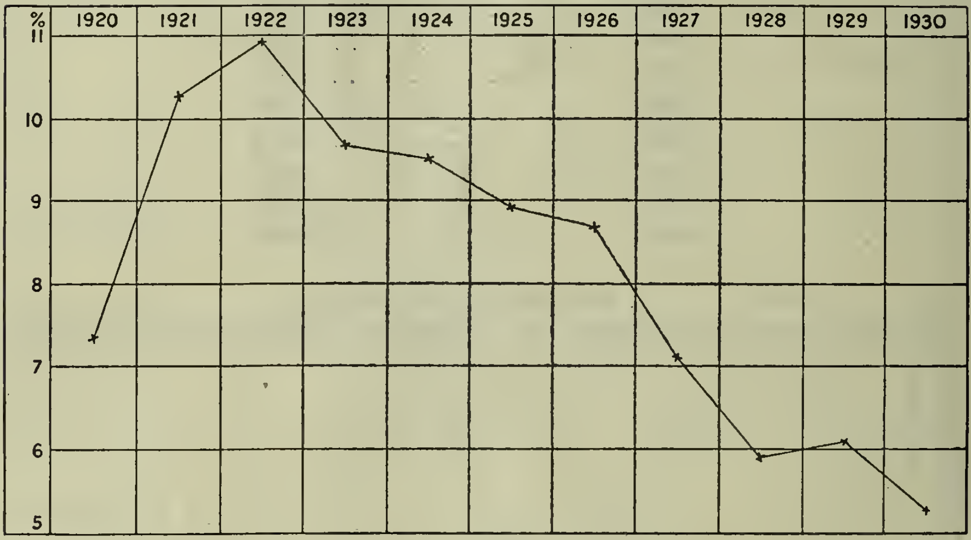
Uncleanliness of head, although showing some diminution on the year, is still unpleasantly prominent, particularly amongst the girls. The worst cases are found, as usual, amongst the intermediate and entrant girls, the older girls apparently having derived some benefit from the constant attention paid to them by the School Nurses.

That the lessons of school life, however, do not persist is seen from the percentage of dirty heads found amongst the entrants. The mothers of these children, in the majority of cases, were themselves inspected at school, and one can only conclude that carelessness is a greater factor than ignorance in the production of a condition which ought, with a little exertion, to become extinct in a comparatively short time.

The percentages for Unclean Heads and Bodies are as follows:—

Year.	Heads.	Bodies.
1920	7·32	1·75
1921	10·29	1·55
1922	10·95	0·86
1923	9·7	0·84
1924	9·52	0·98
1925	8·93	1·15
1926	8·68	1·15
1927	7·06	1·15
1928	5·85	0·87
1929	6·09	1·12
1930	5·27	1·37

GRAPH 2 UNCLEAN HEADS - ROUTINE CASES



RINGWORM OF THE HEAD.

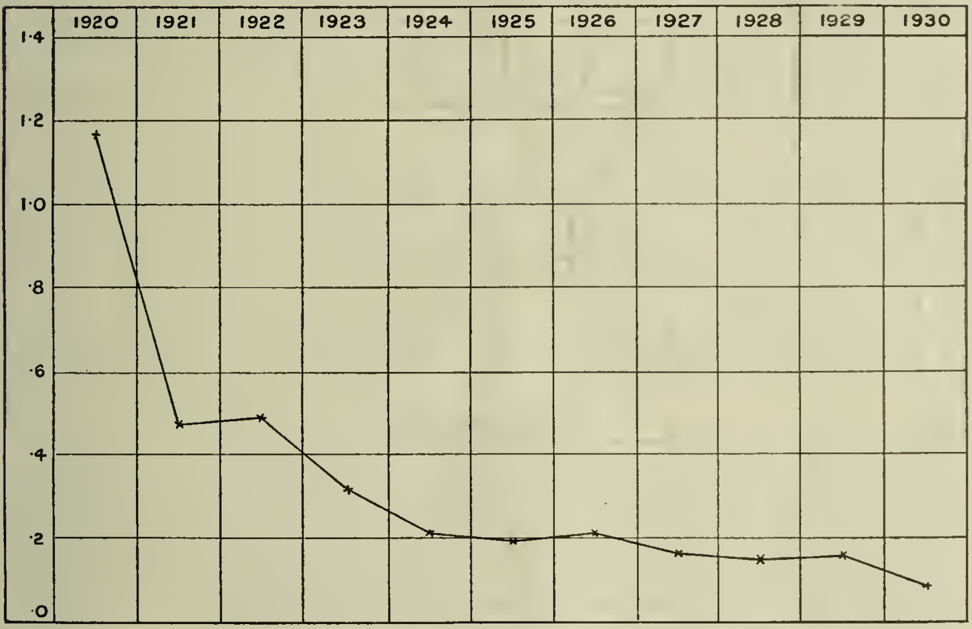
Ringworm of the head and body show an appreciable fall during the year, both having diminished by about 50 per cent. as compared with last year. The incidence for ringworm of the head is now only 1/12th of that found 10 years ago.

The figures for both defects are given below.

RINGWORM.

Year.	Head.	Body.
1920	1·17	0·2
1921	0·47	0·097
1922	0·49	0·063
1923	0·32	0·121
1924	0·21	0·057
1925	0·19	0·102
1926	0·21	0·076
1927	0·16	0·079
1928	0·15	0·081
1929	0·157	0·071
1930	0·09	0·03

GRAPH 3 RINGWORM OF HEAD – ROUTINE CASES



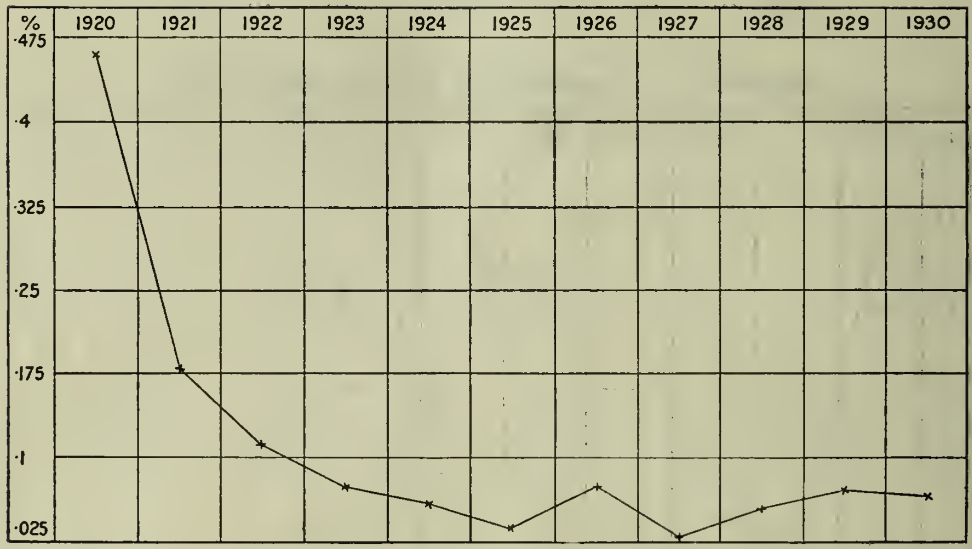
SCABIES.

Scabies remains at about the same level as last year.

The percentages for Routine cases in the last 11 years are :—

Year.	%
1920	0·46
1921	0·181
1922	0·11
1923	0·073
1924	0·057
1925	0·033
1926	0·073
1927	0·026
1928	0·057
1929	0·07
1930	0·066

GRAPH 4 SCABIES – ROUTINE CASES



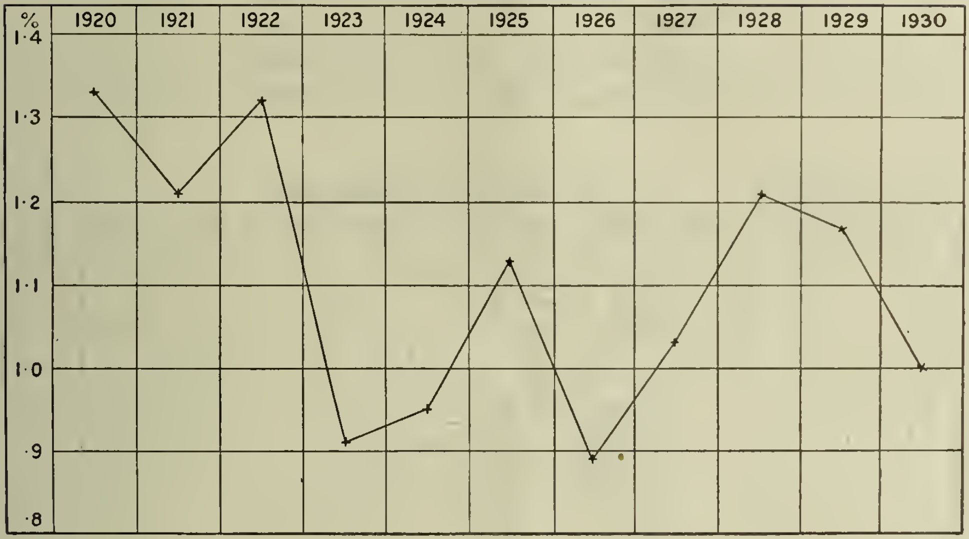
IMPETIGO CONTAGIOSA.

Impetigo Contagiosa remains at its usual level of 1 per cent.

The percentages amongst all Routine cases since 1920 are :—

Year.	%
1920	1·33
1921	1·21
1922	1·32
1923	0·91
1924	0·94
1925	1·18
1926	0·89
1927	1·03
1928	1·21
1929	1·17
1930	1·0

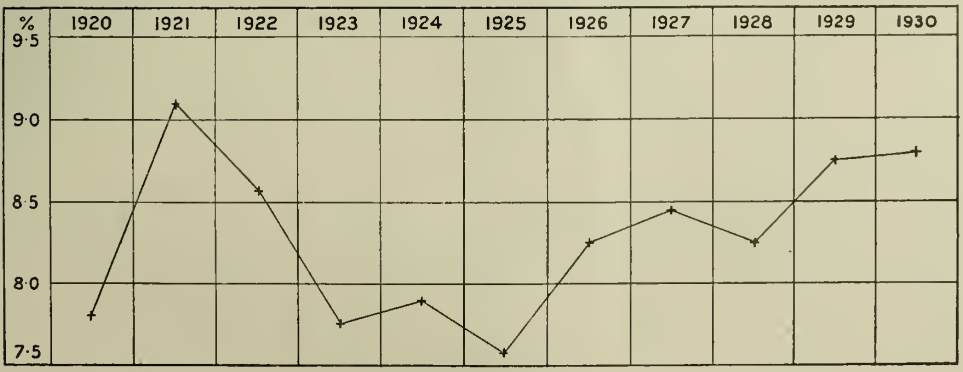
GRAPH 5 IMPETIGO - ROUTINE CASES



DEFECTIVE VISION.

Defective Vision is apparently at the same level as last year. The graph is somwehat misleading, because the Snellen's Test Type can only be used for the detection of Defective Vision when children are able to read. Some of the cases amongst entrants are, therefore, likely to be missed, and the true incidence of Defective Vision is probably higher than that shown. In the intermediate group 12 per cent. of boys had Defective Vision and 14·7 per cent. of girls. Amongst the leavers there were 12·2 per cent. of boys and 14·1 per cent. of girls with defective vision.

GRAPH 6 DEFECTIVE VISION - ROUTINE CASES



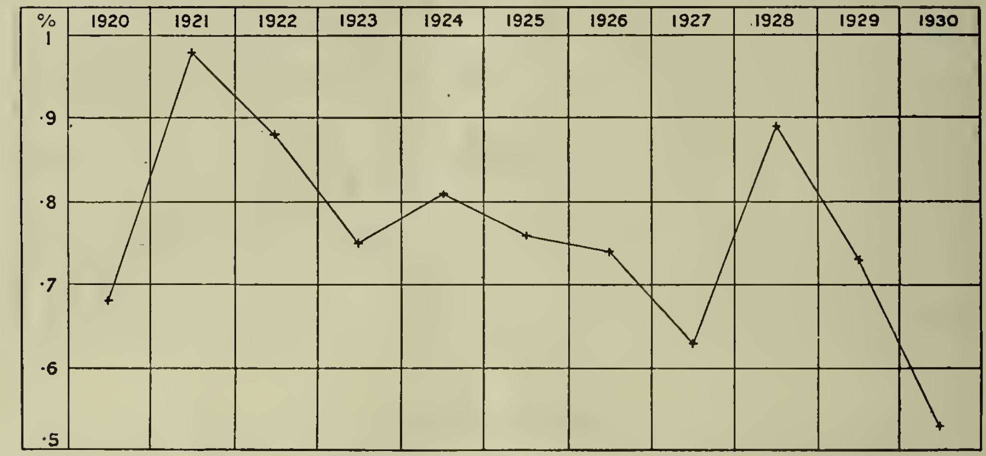
OTITIS MEDIA.

Otitis Media has again shown a fall, having in 1930 reached the lowest level yet experienced in this County. No special form of treatment beyond that usually given in the School Clinics has been practised for this disease. The preventive treatment by the operation for removal of adenoids has, no doubt, assisted in diminishing the incidence.

The percentages of Routine cases since 1920 are :—

Year.	%
1920	0·68
1921	0·98
1922	0·88
1923	0·75
1924	0·81
1925	0·76
1926	0·74
1927	0·63
1928	0·89
1929	0·73
1930	0·52

GRAPH 7 OTITIS MEDIA – ROUTINE CASES



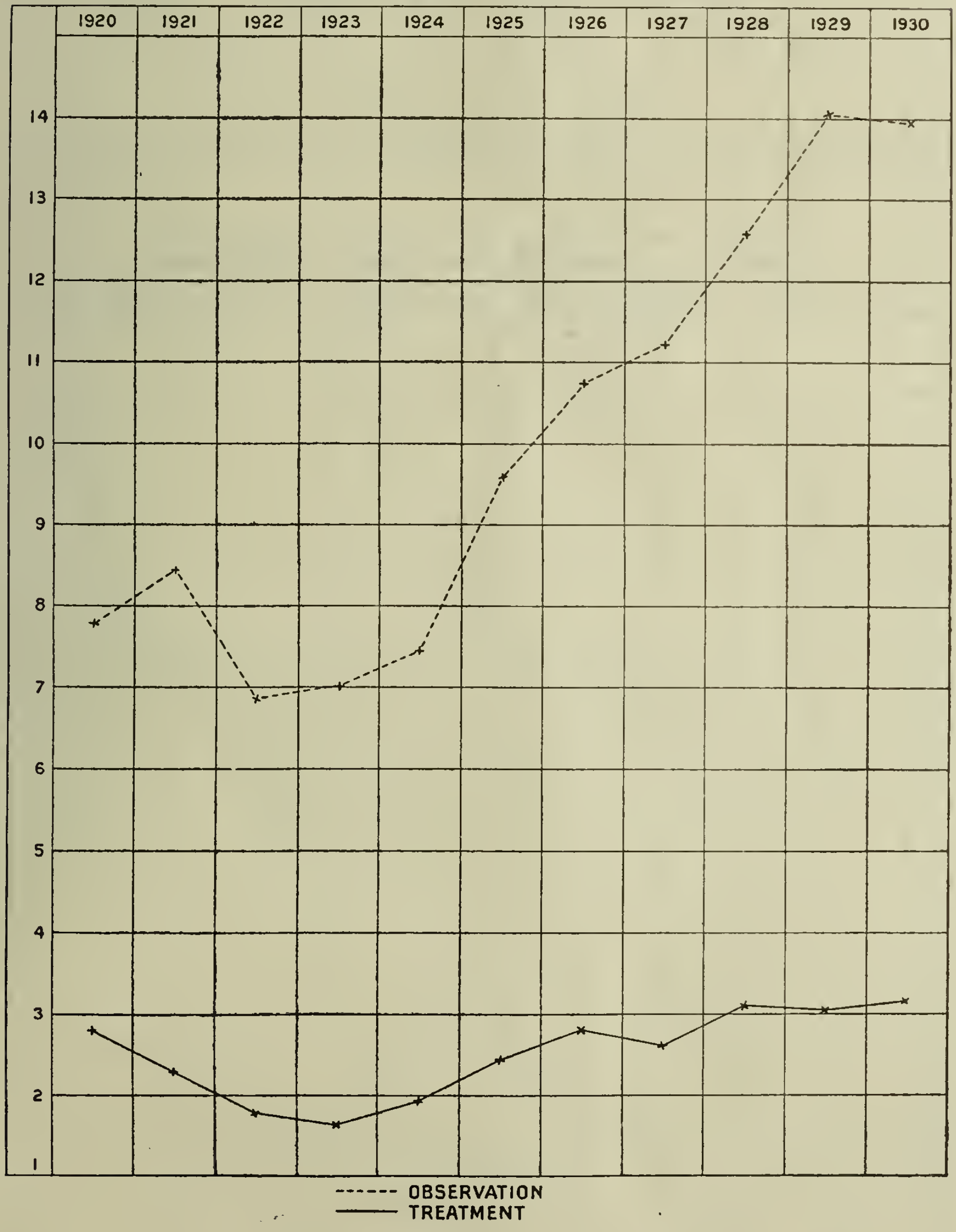
Tonsils and Adenoids.

Tonsils and adenoids show little change from last year. During the year there were 1,961 operations at Hospitals under the Authority's Scheme.

The percentages are as follows :—

Year.	Treatment.	Observation.
1920	2·82	7·79
1921	2·3	8·44
1922	1·79	6·87
1923	1·65	7·01
1924	1·93	7·46
1925	2·43	9·59
1926	2·82	10·73
1927	2·61	11·22
1928	3·11	12·57
1929	3·05	14·05
1930	3·16	13·94

GRAPH 8 ENLARGED TONSILS AND ADENOIDS - ROUTINE CASES



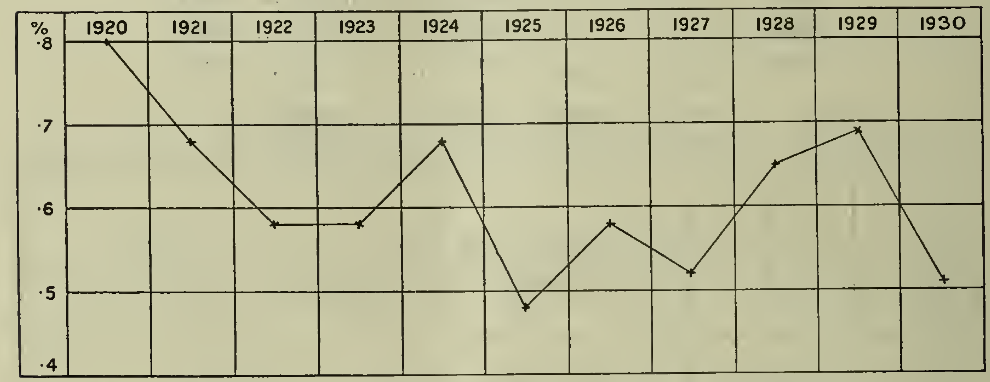
HEART DISEASE.

Organic heart disease shows a slight but probably significant fall since last year, whereas functional heart disease still continues its tendency to rise. There is very little variation in the incidence of functional heart disease amongst the three routine groups, but the effect of rheumatism and its allies is seen in the increased incidence of organic heart disease amongst the leavers where the percentage affected is three or four times that amongst the entrants.

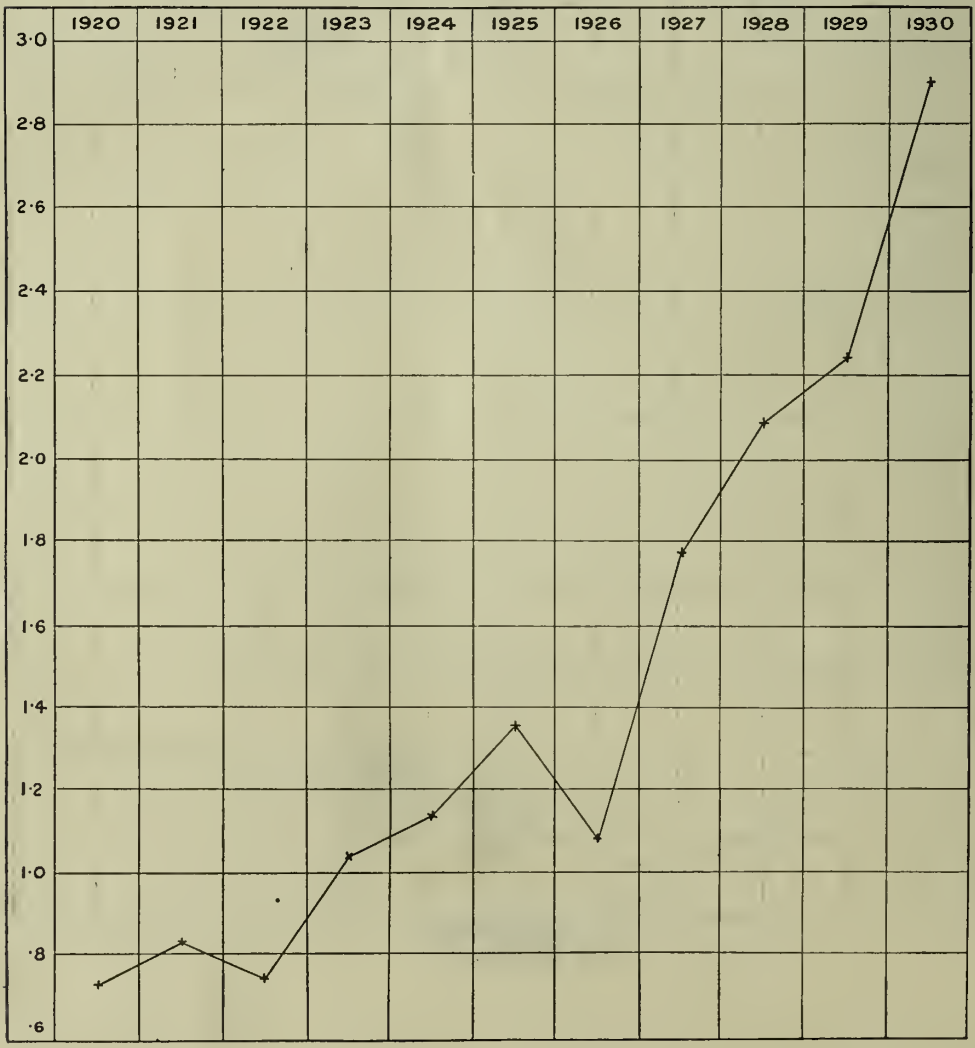
The percentages for the 11 years are :—

Year.	Organic.	Functional.
1920	0·8	0·73
1921	0·68	0·83
1922	0·58	0·74
1923	0·58	1·04
1924	0·68	1·14
1925	0·48	1·36
1926	0·58	1·08
1927	0·52	1·78
1928	0·65	2·09
1929	0·69	2·24
1930	0·50	2·92

GRAPH 9 ORGANIC HEART DISEASE- ROUTINE CASES



GRAPH 10 FUNCTIONAL HEART DISEASE – ROUTINE CASES



RICKETS.

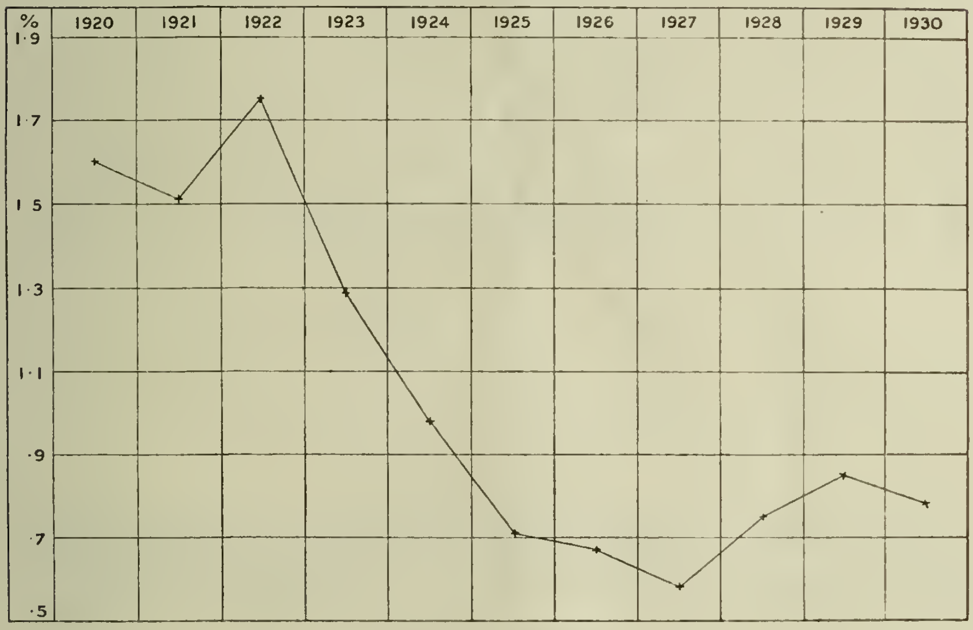
Rickets shows a slight fall for the year, the number of cases being now about half of that 10 years ago. The incidence is noted more frequently amongst the entrants than in any other group.

Other forms of deformity, including Spinal Curvature, are found in about 3·5 per cent. of the children examined.

The percentages for 11 years are :—

Year.	%
1920	1·6
1921	1·51
1922	1·75
1923	1·29
1924	0·98
1925	0·71
1926	0·67
1927	0·58
1928	0·75
1929	0·85
1930	0·78

GRAPH II RICKETS- ROUTINE CASES



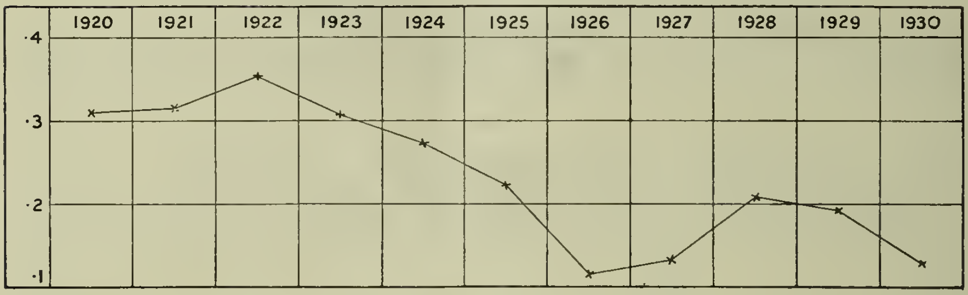
NON-PULMONARY TUBERCULOSIS.

Non-pulmonary tuberculosis is apparently diminishing. Of the 47 cases found amongst the routine groups, 29 were cases showing tuberculosis of glands and 10 with tuberculosis of the skin. The acute forms of tuberculosis of the bones and joints are not, as a rule, in school. When discovered they are referred to the Tuberculosis Officer.

The percentages for the past 11 years are :—

Year.	%
1920	0·31
1921	0·315
1922	0·355
1923	0·308
1924	0·272
1925	0·223
1926	0·115
1927	0·132
1928	0·209
1929	0·192
1930	0·129

GRAPH 12 NON-PULMONARY TUBERCULOSIS – ROUTINE CASES



VISUAL ACUITY.

The visual acuity of all "Intermediates" *i.e.*, children aged eight years, and all "Leavers" *i.e.*, children aged 12, 13 and 14 years, is tested by means of the Snellen test types and the following table summarises the results of these tests. :—

		BOYS.		GIRLS.	
		Inter-mediates.	Leavers.	Inter-mediates.	Leavers.
No. Examined		6,828	4,791	6,747	4,799
6	R.	82·8	83·7	79·1	80·7
	L.	82·3	82·8	78·5	79·8
9	R.	8·6	6·7	10·1	8·4
	L.	9·0	7·4	10·4	7·9
12	R.	3·3	3·0	4·4	3·4
	L.	3·4	3·4	4·2	4·1
18	R.	2·2	2·5	2·6	2·6
	L.	2·4	2·4	2·9	3·1
24	R.	1·6	1·5	1·6	1·9
	L.	1·2	1·4	1·9	2·1
36	R.	0·8	1·3	1·1	1·4
	L.	1·0	1·2	1·1	1·6
60	R.	0·4	0·8	0·7	0·9
	L.	0·3	0·7	0·6	0·8
0	R.	0·3	0·5	0·4	0·7
	L.	0·3	0·7	0·4	0·6

DENTAL DEFECTS.

As dentists are now inspecting children at a higher age it is perhaps more important to review their figures than those of the Medical Officers.

Of the children inspected by the dentists 77·0 per cent. were found to require treatment.

CRIPPLING DEFECTS.

The following table shows in percentages the incidence of the principal crippling diseases among the children who were examined in the routine age groups :—

	ENTRANTS.		INTERMEDIATES		LEAVERS.	
	Boys.	Girls.	Boys.	Girls.	Boys.	Girls.
Tuberculosis of Bones and Joints ...	0·03	0·03	0·04	...	0·02	...
Infantile Paralysis	0·03	0·06	0·2	0·07	0·1	0·08
Rickets	1·8	1·3	0·5	0·3	0·3	0·3
Spinal Curvature and other Deformities	3·2	2·6	3·1	3·3	4·8	4·4

The following table shows the position amongst the group of " Specials " :—

	Boys.	Girls.
No. Examined	9,933	9,698
Tuberculosis of Bones and Joints ...	3	7
Infantile Paralysis	21	15
Rickets	130	60
Spinal Curvature and other Deformities	264	258

The total number of children belonging either to the routine age groups or to the class of " Specials " who were found to be suffering from one of the conditions which produce crippling, is shown below :—

Tuberculosis of Bones and Joints	18
Infantile Paralysis	68
Rickets	474
Spinal Curvature	212
Other Deformities	1560
	2332

It is to be noted that the above table refers to the conditions which produce crippling, and not necessarily to actual crippling; many of the conditions noted require observation only, and not active treatment.

The ascertainment of all the crippled children in the Administrative County is being actively pursued. At the end of 1930 the number of crippled children of Elementary School age who had been definitely entered on the new register of cripples was as follows :—

	Boys.	Girls.	Total.
Active non-pulmonary tuberculosis, chiefly of bones and joints	86	56	142
All other forms of crippling	959	879	1,838

These figures give a very imperfect idea of the amount of crippling conditions which have to be treated under the Authority's Cripple Scheme ; they take no account of the cripples under school age, and yet the incidence of the principal causes of crippling—tuberculosis, rickets, and infantile paralysis—is largely prior to school age and occurs in the first five years of life.

INFECTIOUS DISEASE.

Of administrative procedures for the prevention of infectious disease the most important are :—

1.—The exclusion of children suffering from, or showing symptoms suggestive of, infectious disease, or who may, it is feared, develop disease after exposure to infection ;

2.—The closure of schools or of departments of schools.

During 1930 it was found necessary to close 78 schools on account of the prevalence of infectious disease. Every endeavour has again been made by the Assistant County Medical Officers to work in close co-operation with the local Medical Officers of Health whenever the closure of a school or department was in question.

The following tables show the number of schools which were closed during the year and the causes of closure :—

No. of Schools Closed during 1930 by the Sanitary Authority (Article 22 of the Code).

Measles	48
Scarlet Fever	2
Whooping Cough	3
Diphtheria	2
Chicken-pox	3
Scarlet Fever and Whooping Cough	1
Mumps	1
Measles and Mumps...	3
Measles and Scarlet Fever	2
Defective Heating apparatus	1
Disinfection	2
Flooding	1
	69

No. of Schools closed during 1930 by the School Medical Officer (Article 23 (b) of the Code).

Measles	6
Scarlet Fever	1
Whooping Cough	1
Chicken-pox	1
	9

Frequently requests are made that a school should be closed because the attendance has fallen considerably. The necessity for closure is not always obvious, for in Urban areas the children have opportunities of meeting in other places than the school.

In such cases, however, the School Medical Officer is empowered, under the Education Act, 1921 (Grant Regulations, No. 8 (Amendment, No. 2, 1924)), to give certificates to any school where the attendance, on account of the occurrence of Infectious Disease, has fallen below 60 per cent. of the number of children on the Register.

The number of such certificates given during 1930 was 433.

Diphtheria showed an increased prevalence during the year, and the following article by Dr. F. Hall shows the advantages of immunisation in checking an epidemic.

AN OUTBREAK OF VIRULENT DIPHTHERIA IN A MIXED SCHOOL. CONTROLLED BY IMMUNISATION.

(Dr. F. Hall).

During the summer of 1930 an outbreak of Diphtheria occurred amongst the children attending Hart Common School, Westhoughton. This is a mixed school of 192 children, 27 of whom were under five years of age. After the first two cases the school was closed for two weeks, from June 16th until June 27th, but early in July four fresh cases were notified.

The character of the epidemic may be judged from the table below.

Case No.	Sex.	Age.	Date of notification.	Removed to Hospital.	Result.
1	M	12	June 14th	No	Recovered.
2	M	11	Not notified	No	Died June 8th.
3	F	11	June 19th	No	Recovered.
4	M	8	June 25th	Yes	Died.
5	M	6	Not notified	No	Died June 29th.
6	M	7	July 2nd	Yes	Recovered.
7	M	10	July 3rd	Yes	Recovered.
8	M	5	July 3rd	Yes	Died.
9	M	5	July 4th	Yes	Recovered.
10	M	12	July 27th	Yes	Died.
11	M	12	July 28th	Yes	Died.
12	M	6	Not notified.	No	Died August 11th.
13	F	10	Not notified.	No	Died September 28th.
14	M	8	October 30th	Yes	Recovered.
15	F	11	December 2nd	Yes	Recovered.

With regard to cases Number 5, 12 and 13 the cause of death was certified as due to septic throat conditions, but there is some evidence that they were infected by the same toxic organism. Case No. 14 had only one immunising injection, and case No. 15 two immunising injections, previous to contracting diphtheria. Both of these cases were very mild in type, and made an uninterrupted recovery.

In view of the seriousness of the outbreak, the Local Medical Officer of Health and the School Medical Officer agreed that immunisation of all susceptible children should be attempted. The Headmaster of the school gave most valuable assistance in obtaining the consent of the parents for the necessary inoculations to be given, by sending out notices, interviewing parents, and giving an address upon the subject of premunisation. As a result of these efforts consent was obtained for 54 per cent. of the children over five years of age, and 37 per cent. of the children under five to be immunised, *i.e.*, 51 per cent. of the whole school. A preliminary Schick test was applied to the over fives, of whom 71·5 per cent. gave a negative reaction, and 28·5 per cent. gave a positive reaction. Including the under five year old children there was, therefore a susceptible density of 38 per cent.

The test material and the immunising serum were obtained from Messrs. Burroughs, Welcome & Co., Ltd. M.T. Toxoid was used for immunising. No preliminary Schick test was carried out in the cases of the 10 children under five for whom consent had been obtained.

The total number of children who received three immunising doses was 93, that is 48·4 per cent. of the whole school. Of the remaining 99 children, six were known to have had diphtheria fairly recently. Seventy-six children over five years of age, and 17 under five years of age were not treated. The Schick tests indicated that of the 76 children over five years of age, 21 would probably be susceptible, *i.e.*, 12·7 per cent. of the total number of children over five in the school. Including the 17 untreated under fives this percentage is raised to 19·7 per cent. At the time of writing eight months have elapsed without further cases of infection arising.

The chief features of the epidemic were as follows :—

(1) The case mortality was over 50 per cent. Massive doses of antitoxin were not used.

(2) With 28·5 per cent. of the children over five year of age susceptible the epidemic persisted in virulent form.

(3) When the number of susceptible children was lowered to 19·7 per cent. for the whole school the disease was abated.

(4) In a community which had no experience of premunisation methods, consent was obtained for 51 per cent. of the children to be immunised. This high figure was largely due to the personal influence of the Headmaster.

(5) No ill effects were observed in any of the children immunised.

EXCLUSIONS FROM SCHOOL.

Article 20 (*b*) of the Code provides for the exclusion of individual children from school on the ground that their exclusion is desirable, either in order to prevent the spread of disease, or on the ground that their uncleanly or verminous condition is detrimental to the other children.

The exclusion of individual children, as distinct from closure of the whole school, is made by the Committee's own staff.

The exclusion by the Assistant County Medical Officers and Nurses is made on a special form in triplicate. One copy is sent to the Central Office for the approval and counter-signature of the School Medical Officer ; another is left in the school as authorisation for the Head Teacher and School Attendance Officer ; and the third is retained by the Medical Officer or Nurse as a record. The exclusions are made for a specified period, and the children are re-examined at the end of the period, and either re-admitted as fit for school or excluded for such further period as may be necessary.

In the following table the number of children excluded under Article 20 (*b*) and the causes of exclusion are shown :—

Uncleanliness.		Scabies.	Ring-worm.	Impet-igo.	Scarlet Fever.	Measles	Mumps.	Diph-theria.	Chicken Pox.	Phthisis	Whoop-ing Cough.	Other Diseases	Total.
Head.	Body.												
213	6	151	112	677	33	108	95	21	82	1	16	2691	4206

FOLLOWING-UP.

During the year the Nurses as School Nurses visited 15,527 homes, and also made 186,715 examinations of school children in school, paying 4,452 visits to the schools, in addition to the visits paid to, and the work done in, the schools when they assisted the medical officers at routine inspections. As Health Visitors they paid 86,084 visits to homes, 4,748 visits to expectant mothers, 238 visits to cases of ophthalmia neonatorum, and 1,611 visits on miscellaneous matters ; in the Child Welfare Centres they saw babies and young children 119,171 times, and expectant mothers 4,546 times.

MEDICAL TREATMENT.

The policy of asking parents to contribute according to their means is still followed. Cases are first of all referred to their own doctor, who treats the case if satisfactory arrangements can be made. If no treatment has been obtained within a month, the case is then referred to the Clinic, when such is available, or to Hospital, as the case may be. A nominal sum is asked for each attendance at the Clinic, but in necessitous cases no charge is made. The consent, in writing, of a parent or guardian is obtained before treatment of any kind is given.

The following table shows the number of attendances made at the various School Clinics during the past year.

Name of Clinic.	Minor Ailments.				Dental.			Ophthalmic.		Artificial Light.	
	Children of School Age.		Children under 5 and not at School.		Children of School Age.	Children under 5 and not at School.	Nursing and Expectant Mothers.	Children of School Age.	Children under 5 and not at School.	Children of School Age.	Children under 5 and not at School.
	Treatment.	Inspection.	Treatment.	Inspection.							
Ashton-in-Makerfield	2446	807	...	2	1634	3	14	800	...	...	...
Ashton-under-Lyne...	...	...	...	...	...	...	...	...	...	440	154
Atherton	66	76	...	...	...	...	...	...	...	1131	782
Audenshaw	2084	339	21	5	2454	17	5	349	14	...	...
Chorley	266	35	34	8	341	...	...	55	1	226	34
Crompton	1488	655	16	11	1432	7	2	339	3	...	...
Dalton	2441	463	162	3	1356	49	96	170	7	...	...
Fleetwood	4003	143	99	4	1785	32	33	254	39	...	...
Great Crosby ...	...	...	...	...	1011	...	...	...	...	...	...
Haydock	1955	243	26	1	970	50	49	711	14	...	...
Horwich	4157	769	...	3	1321	8	11	301	...	957	...
Irlam	2245	276	17	17	2620	56	38	575	22	...	...
Kearsley	2692	650	...	...	2039	28	5	911	...	...	...
Lancaster	...	...	...	...	...	...	...	73	5	...	...
Leyland	3862	421	431	76	1006	14	23	631	9	...	...
Litherland	3390	866	76	...	1745	45	40	1017	39	...	...
Littleborough ...	1790	...	60	33	798	10	7	438	22	...	...
Milnrow	823	155	62	19	491	2	...	...	...	...	...
Ormskirk	3361	40	6	...	644	7	19	...	...	...	...
Orrell...	577	256	9	10	491	5	8	189	13	...	...
Oswaldtwistle ...	3241	302	48	19	1350	5	...	295	11	...	...
Padiham	1696	246	31	16	2547	2	...	225	22	...	...
Prescot	1979	1330	128	62	1515	92	122	322	21	...	...
Ramsbottom ...	1453	480	...	...	1244	1	...	370	4	...	...
Rishton	2406	382	38	15	1632	1	...	367	3	...	...
Rochdale	...	...	...	...	...	...	...	214	14	...	...
Royton	3646	929	...	...	1495	...	...	404	...	...	...
Skelmersdale ...	...	342	...	...	...	...	...	...	...	...	...
Tyldesley	1536	890	...	3	1250	1	4	645	7	...	...
Ulverston	2174	466	202	1	2308	27	42	311	37	...	...
Walkden	2174	149	20	5	1963	6	9	224	2	...	...
Westhoughton ...	1609	293	...	...	1728	19	5	320	...	498	...
Whitefield	1783	547	...	...	2341	30	26	497	13	...	...
Whitworth	2484	359	50	56	899	7	...	...	...	...	...
Total ...	63827	12909	1436	369	42410	524	558	11007	322	3252	970

Total number of attendances made by children of school age	...	133,405
Total number of attendances made by Child Welfare cases	...	4,179
Grand Total ...	...	137,584

The development of Medical Treatment has progressed still further, and since the last Report additional Clinics have been opened at Atherton, for the treatment of minor ailments and teeth defects, and at Carnforth and Chorley, for the treatment of minor ailments, defective eyesight, and teeth defects. Arrangements have also been made during the year with the Whiston Infirmary for the operative treatment of squint.

The following is a list of the School Clinics open for treatment at the time of going to press, the kind of work which is undertaken in each being shown :—

Township.	Days and Times of Opening.		Nature of work undertaken.	Remarks.
Ashton-in-Makerfield	Mon.	a.m. & p.m.	Dental	
	Tues.	a.m.	Minor ailments	
		p.m.	Orthopædic	Surgeon attends second Tuesday in each month only.
	Wed.	a.m.	Ophthalmic	Alternate weeks only.
	Thurs.	p.m.	Minor ailments	Nurse only. Re-dressings.
		a.m. & p.m.	Dental	
	Fri.	a.m. & p.m.	Dental	
Ashton-under-Lyne (*a*)	Wed.	a.m.	Orthopædic	Surgeon attends third Wednesday in each month only.
	Fri.	a.m.	Orthopædic	Nurse only.
Ashton-under-Lyne (*b*)	Mon. Tues. Wed. Thurs. Fri.	p.m.	Artificial light	Doctor attends Tuesday and Friday only.
Atherton	Mon.	p.m.	Artificial light	
		p.m.	Minor ailments	Nurse only. Re-dressings.
	Tues.	a.m. & p.m.	Dental	
	Thurs.	a.m.	Minor ailments	
		a.m.	Artificial light	
	Fri.	a.m. & p.m.	Dental	
Audenshaw	Mon.	a.m.	Minor ailments	
	Tues.	a.m. & p.m.	Dental	
	Wed.	a.m. & p.m.	Dental	
		p.m.	Ophthalmic	Open alternate weeks only.
	Thurs.	a.m.	Minor ailments	Nurse only. Re-dressings.
	Fri.	a.m. & p.m.	Dental	
Burnley	Thurs.	p.m.	Orthopædic	Surgeon attends second Thursday in each month only.
Carnforth	Mon.	a.m.	Minor ailments	Doctor attends fortnightly. Alternate weeks nurse only attends for re-dressings.
		a.m. & p.m.	Dental	
	Thurs.	a.m.	Minor ailments	Nurse only. Re-dressings.
	Fri.	a.m.	Ophthalmic	Open alternate weeks only.
Chadderton	Wed.	p.m.	Orthopædic	Surgeon attends second Thursday in each month only.
	Fri.	p.m.	Orthopædic	Nurse only.
Chorley (*a*)	Mon.	a.m.	Minor ailments	Nurse only. Re-dressings.
	Tues.	a.m. & p.m.	Dental	
	Wed.	a.m.	Ophthalmic	Open alternate weeks only.
	Thurs.	a.m.	Minor ailments	
	Fri.	a.m. & p.m.	Dental	

Township.	Days and Times of Opening.		Nature of work undertaken.	Remarks.
Chorley (*b*)	Mon. Wed. Fri.	2—3 p.m. Boys 3—4 p.m. Girls	Artificial light	
Crompton	Mon.	a.m.	Ophthalmic	Open alternate weeks only.
		a.m. & p.m.	Dental	
	Tues.	a.m.	Minor ailments	Nurse only. Re-dressings.
	Thurs.	a.m. & p.m.	Dental	
	Fri.	a.m.	Minor ailments	
Dalton-in-Furness	Mon.	a.m.	Minor ailments	Nurse only. Re-dressings.
	Tues.	a.m. & p.m.	Dental	
	Thurs.	a.m.	Dental	
		a.m.	Minor ailments	
	Fri.	a.m.	Ophthalmic	
Fleetwood	Mon.	a.m. & p.m.	Dental	
		a.m. & p.m.	Orthopædic	Nurse only.
	Tues.	a.m.	Minor ailments	
	Wed.	a.m. & p.m.	Dental	
	Thurs.	a.m.	Minor ailments	Nurse only. Re-dressings.
		a.m. & p.m.	Dental	
	Fri.	a.m. & p.m.	Orthopædic	Surgeon attends third Friday in each month only.
		a.m.	Ophthalmic	Open alternate weeks only.
Great Crosby	Tues Thurs. Fri.	a.m.	Dental	
Haydock	Mon.	a.m.	Minor ailments	Nurse only. Re-dressings.
	Tues.	a.m.	Orthopædic	Surgeon attends second Tuesday in each month only.
	Wed.	a.m.	Minor ailments	
	Thurs.	a.m.	Ophthalmic	Open alternate weeks only.
		a.m. & p.m.	Dental	Open alternate weeks only.
	Fri.	a.m. & p.m.	Dental	
Horwich	Mon.	a.m. & p.m.	Minor ailments	Nurse only. Re-dressings.
	Tues.	a.m. & p.m.	Dental	
		a.m.	Artificial light	
	Wed.	a.m.	Ophthalmic	Open monthly.
		a.m.	Orthopædic	Surgeon attends first Wednesday in each month only. Nurse attends first and fourth Wednesdays.
	Fri.	a.m.	Minor ailments	
		p.m.	Dental	
	Sat.	a.m.	Artificial light	
Irlam	Mon.	a.m. & p.m.	Dental	
	Tues.	a.m. & p.m.	Dental	
		a.m.	Minor ailments	
	Wed.	a.m. & p.m.	Dental	
	Thurs.	a.m.	Ophthalmic	Open alternate weeks only.
		a.m. & p.m.	Dental	
		p.m.	Orthopædic	Surgeon attends third Thursday in each month only.
	Fri.	a.m.	Minor ailments	Nurse only. Re-dressings.
		a.m. & p.m.	Dental	

Township.	Days and Times of Opening.		Nature of work undertaken.	Remarks.
Kearsley	Mon.	a.m.	Ophthalmic	
		p.m.	Minor ailments	Nurse only. Re-dressings.
	Tues.	a.m. & p.m.	Dental	
		a.m.	Orthopædic	Nurse only.
	Wed.	p.m.	Orthopædic	Surgeon attends first Wednesday in each month only.
	Thurs.	a.m.	Minor ailments	
	Fri.	a.m. & p.m.	Dental	
Lancaster	Tues.	a.m.	Orthopædic	Third Tuesday, alternate months.
	Thurs.	a.m.	Ophthalmic	Open by arrangement when sufficient number of cases for treatment, usually monthly. Day changed to Monday during summer months.
Leyland	Mon.	a.m.	Minor ailments	Nurse only. Re-dressings.
		p.m.	Orthopædic	Surgeon attends first Monday in each month only.
	Tues.	a.m. & p.m.	Dental	
	Wed.	a.m.	Ophthalmic	Open alternate weeks only.
	Thurs.	a.m.	Minor ailments	
	Fri.	a.m. & p.m.	Dental	
Litherland	Mon.	a.m. & p.m.	Dental	
	Tues.	a.m.	Minor ailments	
		p.m.	Dental	
	Wed.	a.m. & p.m.	Dental	
		a.m.	Orthopædic	Surgeon attends second Wednesday in each month only.
	Thurs.	a.m.	Ophthalmic	
		a.m.	Orthopædic	Nurse only.
		p.m.	Dental	
	Fri.	a.m.	Minor ailments	
Littleborough	Mon.	a.m. & p.m.	Dental	
	Tues.	a.m.	Minor ailments	Nurse only. Re-dressings.
	Wed.	a.m.	Ophthalmic	Open alternate weeks only.
	Thurs.	a.m.	Minor ailments	
Milnrow	Tues.	a.m. & p.m.	Dental	
		a.m.	Minor ailments	
	Fri.	a.m.	Minor ailments	Nurse only. Re-dressings.
Nelson	Fri.	p.m.	Orthopædic	Surgeon attends third Friday in each month only.
Ormskirk (*a*)	Mon.	a.m.	Minor ailments	Open alternate weeks only. (Re-dressings by Hospital staff each day).
	Fri.	a.m. & p.m.	Dental	
Ormskirk (*b*)	Fri.	a.m.	Orthopædic	Surgeon attends first Friday in each month only. Nurse attends each Friday, except third Friday.

Township.	Days and Times of Opening.		Nature of work undertaken.	Remarks.
Orrell	Tues.	a.m.	Minor ailments	Nurse only. Re-dressings.
		a.m. & p.m.	Dental	
	Wed.	a.m. & p.m.	Dental	
	Thurs.	a.m.	Minor ailments	
	Fri.	p.m.	Ophthalmic	Open alternate weeks only.
Oswaldtwistle	Mon.	a.m.	Minor ailments	Nurse only. Re-dressings.
	Tues.	a.m.	Ophthalmic	Open alternate weeks only.
	Wed.	a.m. & p.m.	Dental	
	Thurs.	a.m.	Minor ailments	
	Fri.	a.m. & p.m.	Dental	
Padiham	Mon.	a.m. & p.m.	Dental	
	Tues.	a.m.	Minor ailments	
	Wed.	a.m. & p.m.	Dental	
		p.m.	Ophthalmic	Open every third week.
	Thurs.	a.m. & p.m.	Dental	
	Fri.	a.m.	Minor ailments	Nurse only. Re-dressings.
Prescot	Mon.	a.m. & p.m.	Dental	
		a.m.	Minor ailments	Nurse only. Re-dressings.
	Tues.	a.m. & p.m.	Dental	
	Wed.	a.m. & p.m.	Dental	
		p.m.	Ophthalmic	Open first and last Wednesday in each month only.
	Thurs.	a.m.	Minor ailments	
	Fri.	p.m.	Orthopædic	Surgeon attends first Friday in each month only. Nurse attends each Friday, except third Friday.
Preston	Wed.	a.m. & p.m.	Orthopædic	Surgeon attends fourth Wednesday in each month only.
Ramsbottom	Mon.	a.m.	Minor ailments	Nurse only. Re-dressings.
	Tues.	a.m. & p.m.	Dental	
	Wed.	a.m.	Minor ailments	
	Fri.	a.m.	Ophthalmic	Open alternate weeks only.
		a.m. & p.m.	Dental	
Rawtenstall	Wed.	a.m.	Orthopædic	Surgeon attends fourth Wednesday in each month only.
Rishton	Mon.	a.m.	Minor ailments	Nurse only. Re-dressings.
		a.m. & p.m.	Dental	
	Tues.	a.m.	Ophthalmic	Open alternate weeks only.
	Wed.	a.m. & p.m.	Dental	
	Wed.	p.m.	Orthopædic	Surgeon attends fourth Wednesday in each month only.
	Thurs.	a.m. & p.m.	Dental	
	Fri.	a.m.	Minor ailments	
Rochdale	Mon.	a.m.	Orthopædic	Surgeon attends each week.
	Tues.	a.m.	Ophthalmic	Open alternate weeks only.
Royton	Tues.	a.m.	Minor ailments	
	Wed.	a.m. & p.m.	Dental	
		a.m.	Ophthalmic	Open alternate weeks only.
	Thurs.	a.m. & p.m.	Dental	
	Fri.	a.m.	Minor ailments	Nurse only. Re-dressings.

Township	Days and Times of Opening.		Nature of work. undertaken.	Remarks.
Skelmersdale	Wed.	p.m.	Inspection	
Tyldesley	Mon.	a.m. & p.m.	Dental	
		p.m.	Orthopædic	Nurse only.
	Tues.	a.m.	Minor ailments	
	Wed.	a.m. & p.m.	Dental	
		a.m.	Ophthalmic	Open alternate weeks only.
		a.m.	Orthopædic	Surgeon attends second Wednesday in each month only.
	Thurs.	a.m. & p.m.	Dental	
		p.m.	Minor ailments	Nurse only. Re-dressings.
Ulverston	Mon.	a.m.	Minor ailments	Nurse only. Re-dressings.
		a.m. & p.m.	Dental	
	Tues.	p.m.	Orthopædic	Third Tuesday alternate months.
	Wed.	a.m.	Minor ailments	
		a.m.	Dental	
	Thurs.	a.m.	Ophthalmic	Open alternate weeks only.
		p.m.	Dental	
	Fri.	a.m. & p.m.	Dental	
Walkden	Mon.	a.m. & p.m.	Dental	
		p.m.	Ophthalmic	Open alternate weeks only.
	Tues.	a.m.	Minor ailments	Nurse only. Re-dressings.
	Wed.	a.m. & p.m.	Dental	
	Thurs.	a.m. & p.m.	Dental	
	Fri.	a.m.	Minor ailments	
Westhoughton	Mon.	a.m.	Dental	
		a.m.	Minor ailments	
	Tues.	p.m.	Artificial light.	
	Wed.	a.m. & p.m.	Dental	
		a.m.	Ophthalmic	Open every fourth Wednesday only.
		p.m.	Minor ailments	Nurse only. Re-dressings.
	Thurs.	a.m. & p.m.	Dental	
	Fri.	a.m.	Dental	
		a.m.	Artificial light	
Whitefield	Mon.	a.m. & p.m.	Dental	
	Tues.	p.m.	Minor ailments	
	Wed.	a.m. & p.m.	Dental	
	Thurs.	a.m. & p.m.	Dental	
		a.m.	Orthopædic	Surgeon attends third Thursday in each month only.
	Fri.	a.m.	Ophthalmic	Open alternate weeks only.
		p.m.	Minor ailments	Nurse only. Re-dressings.
Whitworth	Mon.	a.m.	Minor ailments	
	Thurs.	a.m.	Minor ailments	Nurse only. Re-dressings.
	Fri.	a.m. & p.m.	Dental	
Wigan	Mon.	a.m.	Orthopædic	Surgeon attends first Monday in each month only.

Arrangements have been made with the following Hospitals for the treatment of specified classes of defect, that marked with an asterisk being a new arrangement made during the year :—

Ancoats Hospital, Manchester	Tonsils and adenoids.
Ashton-under Lyne Infirmary	Operative treatment of squint, refractions, tonsils and adenoids, X-ray treatment of ringworm.
Blackburn Royal Infirmary	Refractions, tonsils and adenoids, X-ray treatment of ringworm,
Bolton Infirmary	Operative treatment of squint, refractions, tonsils and adenoids, X-ray treatment of ringworm.
Burnley Victoria Hospital	Operative treatment of squint, refractions, tonsils and adenoids.
Bury Infirmary	Operative treatment of squint, refractions, tonsils and adenoids, X-ray treatment of ringworm.
Davyhulme Park Hospital	Tonsils and adenoids.
Fleetwood Hospital	Tonsils and adenoids.
Hartley Hospital, Colne	Operative treatment of squint, refractions, tonsils and adenoids.
Lancaster Royal Infirmary	Tonsils and adenoids.
Leigh Borough Clinic	Tonsils and adenoids.
Liverpool Eye and Ear Infirmary (Myrtle Street)	Operative treatment of squint, refractions, tonsils and adenoids.
Liverpool St. Paul's Eye Hospital	Operative treatment of squint.
Oldham Royal Infirmary	Operative treatment of squint, refractions, tonsils and adenoids, X-ray treatment of ringworm,
Ormskirk Cottage Hospital	Refractions, tonsils and adenoids.
Peasley Cross Hospital, St. Helens	Operative treatment of squint, refractions, tonsils and adenoids.
Preston Royal Infirmary	Operative treatment of squint, refractions, tonsils and adenoids, X-ray treatment of ringworm.
Ramsbottom Cottage Hospital	Tonsils and adenoids.
Ulverston Cottage Hospital	Tonsils and adenoids.
Warrington Infirmary	Operative treatment of squint, refractions, tonsils and adenoids.
*Whiston Infirmary	Operative treatment of squint.
Widnes Accident Hospital	Tonsils and adenoids.
Wigan Royal Infirmary	Tonsils and adenoids.
Wigan, Tower Buildings	Refractions.
Ancoats Hospital, Manchester	Crippling defects.
Ethel Hedley Orthopædic Hospital, Windermere	Crippling defects.
Home for Crippled Children, Bamford, near Rochdale	Crippling defects.
Liverpool Children's Hospital, Heswall	Crippling defects.
Myrtle Street Children's Hospital, Liverpool	Crippling defects.

The following statement shows the number of individual children who received treatment under the Hospital Scheme of the Lancashire County Council during the twelve months ended 31st December, 1930 :—

Disease or Defect.	Elementary.	Secondary.	Child Welfare.	Total.
Enlarged Tonsils and Adenoids ...	1,961	18	75	2,054
Defective Vision	723	20	14	757
Squint	27	2	...	29
Aural	2	...	...	2
Ringworm	1	...	...	1

The following table shows the number of cases treated at each Hospital or Infirmary with which the Lancashire County Council has made arrangements :—

Hospital, Infirmary, or Treatment Centre.	T. and A.			Defective Vision.			Squint.			Aural.			Ringworm.		
	E.	S.	C.W.	E.	S.	C.W.	E.	S.	C.W.	E.	S.	C.W.	E.	S.	C.W.
Ancoats Hospital, Manchester	50	1	6	...	...	...	...	...	...	...	...	...	...	...	...
Ashton-under-Lyne Infirmary	95	2	3	51	...	...	...	...	...	...	...	...	...	...	...
Blackburn Royal Infirmary	85	...	2	26	3	2	...	...	...	...	...	...	...	...	...
Bolton Infirmary	358	6	3	...	...	...	...	...	...	...	...	...	...	...	...
Burnley Victoria Hospital	25	...	2	87	...	...	...	...	...	...	...	...	...	...	...
Bury Infirmary	17	...	4	...	...	...	...	...	...	...	...	...	...	...	...
Davyhulme Park Hospital	145	...	6	...	...	...	...	...	...	...	...	...	...	...	...
Fleetwood Hospital	141	1	9	...	...	...	...	...	...	...	...	...	...	...	...
Hartley Hospital, Colne	...	...	...	20	...	...	...	...	...	...	...	...	...	...	...
Lancaster Royal Infirmary	21	...	1	...	...	...	...	...	...	...	...	...	...	...	...
Leigh Borough Clinic	74	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Liverpool Eye & Ear Infirmary	101	...	5	3	...	...	...	...	...	1	...	...	...	...	...
Liverpool St. Paul's Eye Hospital ...	...	...	...	...	...	...	12	2	...	...	...	...	...	...	...
Oldham Royal Infirmary	57	...	...	50	...	...	2	...	...	...	...	...	...	...	...
Ormskirk Cottage Hospital	95	2	2	115	2	3	...	...	...	...	...	...	...	...	...
Peasley Cross Hospital, St. Helens ...	201	2	8	1	1	...	4	...	...	...	...	...	...	...	...
Preston Royal Infirmary	244	3	16	113	1	3	4	...	...	1	...	...	1	...	...
Ramsbottom Cottage Hospital	31	1	...	...	...	...	...	...	...	...	...	...	...	...	...
Ulverston Cottage Hospital...	34	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Warrington Infirmary	71	...	...	17	...	...	1	...	...	...	...	...	...	...	...
Whiston Infirmary	...	...	...	...	...	...	4	...	...	...	...	...	...	...	...
Widnes Accident Hospital	1	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Wigan Royal Infirmary	95	...	8	...	...	...	...	...	...	...	...	...	...	...	...
Wigan, Tower Buildings	...	...	...	240	13	6	...	...	...	...	...	...	...	...	...
Total ...	1961	18	75	723	20	14	27	2	...	2	...	...	1	...	...

Minor Ailments.

These include such defects as running ears, external eye disease, skin diseases, &c., and treatment for them is available for approximately 60,000 children, additional provision having been made in Atherton, Carnforth and Chorley.

Tonsils and Adenoids.

Arrangements are now in force with the following Hospitals and Clinic for the operative treatment of Tonsils and Adenoids :—Ancoats Hospital, Manchester ; Ashton-under-Lyne Infirmary ; Blackburn Royal Infirmary ; Bolton Infirmary ; Burnley Victoria Hospital ; Bury Infirmary ; Davyhulme Park Hospital ; Fleetwood Hospital ; Hartley Hospital, Colne ; Lancaster Royal Infirmary ; Leigh Borough Clinic ; Myrtle Street Hospital, Liverpool ; Oldham Royal Infirmary ; Ormskirk Cottage Hospital ; Peasley Cross Hospital, St. Helens ; Preston Royal Infirmary ; Ramsbottom Cottage Hospital ; Ulverston Cottage Hospital ; Warrington Infirmary ; Whiston Infirmary ; Widnes Accident Hospital ; Wigan Royal Infirmary.

During the year the number of children who received operative treatment for this condition was 2,114, of whom 1,961 were treated under the Committee's scheme.

TUBERCULOSIS.

The treatment of tuberculous school children is in the hands of the Tuberculosis Committee of the Lancashire County Council, and all cases for treatment are referred to the Tuberculosis Officer for the area concerned.

VISION.

The treatment of defects of vision is undertaken either in the Eye Departments of General Hospitals or in the Eye Departments of the Committee's own Clinics. In the former case it is undertaken by the Specialist Staff of the Hospital; in the latter case by part-time Visiting Specialists. Arrangements have been made with the following Hospitals:—Ashton-under-Lyne; Blackburn; Bolton; Burnley; Bury; Colne; Oldham; Ormskirk; Preston; St. Helens; Warrington; Whiston Infirmary; Liverpool, Myrtle Street Eye and Ear Hospital; and St. Paul's Eye Hospital.

Visiting Specialists attend at the School Clinics in Ashton-in-Makerfield Audenshaw, Carnforth, Chorley, Crompton, Dalton-in-Furness, Fleetwood, Haydock, Horwich, Irlam, Kearsley, Lancaster, Leyland, Litherland, Littleborough, Oswaldtwistle, Padiham, Prescot, Rishton, Rochdale, Royton, Ramsbottom, Tyldesley Ulverston, Walkden, Westhoughton, and Whitefield.

The number of children for whom Specialist eye treatment is available is approximately 121,000. The number of children who received treatment for defective vision or squint was 5,746, of whom 5,401 were dealt with under the Committee's scheme.

Arrangements have also been made with certain firms of opticians, in connection with each Ophthalmic Clinic or Hospital, to supply spectacles at a fixed low charge. In necessitous cases the charge is reduced or remitted altogether. The number of children who either purchased or received free spectacles under this scheme was 3,367.

In one area a local charity has arranged for the treatment of visual defect in Elementary School children, and provides spectacles free of charge to every child requiring them.

DENTAL DEFECTS.

The dental staff now consists of fourteen full-time and one part-time dental surgeons; each assisted by a nurse or dental attendant. Dental Clinics have been established in Ashton-in-Makerfield, Atherton, Audenshaw, Carnforth, Chorley, Crompton, Dalton-in-Furness, Fleetwood, Great Crosby, Haydock, Horwich, Irlam, Kearsley, Leyland, Litherland, Littleborough, Milnrow, Ormskirk, Oswaldtwistle, Padiham, Prescot, Ramsbottom, Rishton, Royton, Tyldesley, Ulverston, Walkden, Westhoughton, Whitefield, and Whitworth.

These Clinics serve schools with an average attendance of approximately 54,000 children. The number of children who received treatment during the year was 23,717.

As it is impossible, owing to the large number requiring treatment, to attend to all children, the energies of the dentists are concentrated on the younger groups of children during the eruption of the first permanent teeth.

Apart from this routine work, the dentists treat the following classes:—

(*a*) Expectant and Nursing Mothers, on the recommendation of the Medical Officers;

(*b*) Children under school age, similarly;

(*c*) Casuals.

Casuals are of three classes:—

(*a*) Urgent cases, *e.g.*, toothache, dental abscess;

(*b*) Cases where the mouth has to be put into a clean condition previous to operation for tonsils and adenoids;

(*c*) Cases in which the Medical Officer requests that dental treatment should be given for some other medical reason.

ARTIFICIAL LIGHT TREATMENT.

Clinics have been established at Ashton-under-Lyne, Atherton, Chorley, Horwich, and Westhoughton for the treatment by artificial light of certain children in sub-normal health, and during the year 173 children received this form of treatment, making 3,252 attendances.

Ashton-under-Lyne Artificial Light Clinic.

DR. J. G. WILSON summarises in the following table the treatment of 24 cases at the Ashton-under-Lyne Artificial Light Clinic:—

Initials.	Age.	Sex.	Physical Condition prior to Treatment.	Type of Lamp.	Body Surface Exposed.	Parents' Statements.	Total Period of Treatment.	Numbers of Doses.	Total Dosage.	Other treatment at same time.	Result or Remarks.
A.W.	3	F.	Mild Rickets	Mercury Vapour	Complete	None	1 week	3	12 mins.	None	No change. Treatment discontinued by parents
O.C.	9	F.	Rickets	,,	,,	,,	2 months	12	130 mins.	,,	Improvement. No gain in weight.
J.B.	5	M.	,, ...	,,	,,	,,	2 weeks	4	12 mins.	,,	Parents discontinued treatment.
G.C.	8	M.	Alopecia	,,	Head	,,	2 weeks	4	27 mins.	,,	Hair growing. Parents could not afford fares to continue treatment.
S.S.	7	M.	Alopecia. Catarrh of Respiratory Tract	Hanovia Ultra violet	Complete (with scalp)	,,	2 months	17	157 mins.	,,	Gained 1 lb. 4 oz. in first 3 weeks. Treatment discontinued by parents. Slight improvement in local conditions.
T.B.	10	M.	Alopecia. Malnutrition ...	Mercury Vapour	Complete	Alopecia improved. General ill-health cured	7 months	54	988 mins.	Stimulent ointments to scalp	Slight hair growth. General condition much improved. Gained 1 lb. 8 oz.
L.R.	7	M.	Malnutrition. Anorexia. Losing weight	,,	,,	None	2 months	16	144 mins.	None	Lost 1 lb. No return of appetite. No improvement in general condition.
C.F.	6	F.	Malnutrition. Losing weight	,,	,,	Treatment "worth its weight in gold"	6 months	42	787 mins.	,,	Much improved. Not weighed at beginning. Gained 1 lb. in last 2 months of treatment.
P.Y.	4	M.	Malnutrition	,,	,,	None	1 month	7	65 mins.	,,	No gain of weight. No improvement. Discontinued treatment voluntarily.
H.C.	8	M.	,, ...	,,	,,	Boy has "more vitality" ...	5 months	31	403 mins.	,,	General improvement since commencement of treatment. No gain in weight.
L.B.	9	M.	,, ...	,,	,,	None	3 months	22	212 mins.	,,	Improved. No weight gain.
C.B.	13	M.	,, ...	,,	,,	,,	3 months	24	232 mins.	,,	Improved. No gain in weight.
T.B.	3	M.	,, ...	,,	,,	,,	3 months	19	162 mins.	,,	Appetite improved. Gained 5 oz.
T.N.	6	M.	,, ...	,,	,,	,,	3 weeks	6	52 mins.	,,	Discontinued attendance. No change.
J.S.	10	M.	,, ...	,,	,,	Frequent ill-health during last few years	3 months	22	227 mins.	Tonsils & adenoids removed	Does not look any better, but gained 4 lb. 8 oz.
M.R.	6	F.	,, ...	,,	,,	"Never gained so much before in so short a time."	2 months	17	160 mins.	None	Gained 1 lb. 4 oz. in 6 weeks. Appearance brighter and healthier. Stands straighter.
R.R.	10	M.	,, ...	,,	,,	Improving during last 12 months	2 months	14	137 mins.	,,	Gained 1 lb. 12 oz. in first week. Discontinued attendance.
W.P.	11	F.	Malnutrition. Furunculosis ...	,,	,,	None	3 months	23	428 mins.	,,	Furunculosis cured. Malnutrition much improved. Gained 2 lb. 8 oz.
R.Y.	6	M.	Boils. Chorea	,,	,,	Free from boils while under treatment. "Nerves" better	9 months	43	785 mins.	,,	Boils have recurred since treatment ended. Choric symptoms absent. No weight record.
W.L.	9	M.	Bronchitis (Chronic) and Debility	,,	Total except face and genitalia	General condition improved ...	3 months	20	280 mins.	,,	General condition much improved. No symptoms of bronchitis. No weight record.
A.F.	11	F.	Commencing Fibrosis of lung. Severe cough. Weight stationary	,,	Complete	Free from cough since treated	3 months	24	426 mins.	,,	Gained 3 lb. 8 oz. *Lungs normal.*
G.N.	1 year	M.	Post-pneumonic debility ...	,,	,,	None	4 months	34	607 mins.	,,	Gained 3 lb. 2 oz. General condition improved.
T.B.	4	M.	Bronchitis. Losing weight ...	,,	,,	,,	3 months	12	129 mins.	,,	No improvement. No gain in weight.
W.C.	7	M.	Chronic Otorrhœa (bilateral otitis media), 3 years duration	,,	,,	,,	5 weeks	10	76 mins.	Local to ears ...	Gained 3 lbs. Otorrhœa ceased in L side. ,, still present on R side, but diminished.

Summary.

24 children received " Sunray " treatment in 1930.
13 children were suffering from Malnutrition.
3 children were suffering from Rickets.
3 children were suffering from Alopecia Areata.
2 children were suffering from Furunculosis.
1 child was suffering from Chronic Bronchitis.
1 child was suffering from Catarrh of the entire respiratory tract.
1 child was suffering from Fibrosis of the Lung.
1 child was suffering from Post pneumonic Debility.
1 child was suffering from Chronic Bilateral Otitis Media.
1 child was suffering from Chorea.

All the 13 cases of Malnutrition were treated by general irradiation from a Mercury Vapour Lamp. The average period of treatment was 12·5 weeks (maximum 7 months, and minimum 3 weeks). The average number of doses was 22·8 (maximum 54, minimum 7), and the average strength of dose was 13·4 minutes (maximum 20 minutes, minimum 3 minutes).

All the sufferers from Malnutrition were sent for " Sunray " treatment only as a last resort after they had failed to respond to suitable diet and prolonged medication with Cod Liver Oil preparations. In each case local causes of undernourishment such as "cœliac disease" and "mucous disease" were excluded.

Of the 13 cases of Malnutrition, 5 (38·6 per cent.) were "improved" and 3 (23·7 per cent.) were "much improved." That is to say, 8 (61·5 per cent.) appeared to have benefited from the treatment. Seven children (53·8 per cent.) gained weight. One child (a boy aged 10 years) gained 28 ounces in 1 month. Another (a boy aged 3 years) gained only 5 ounces in 3 months. The average gain per child per week while under treatment was approximately 2·5 ounces, whereas the average gain per week of the normal child who is not under treatment is 1·4 ounces. Of the 6 children who made no gain in weight, 2 presented a healthier appearance and showed signs of greater vitality after 3 months' treatment (total dosage 212 and 232 minutes respectively). A third who had not gained in weight, had received 5 months' treatment (total dosage 403 minutes), but he, too, showed a general improvement from the commencement of treatment, and was said by his parents to have "more vitality" than formerly. Of the remaining 3 who gained no weight: 1 had 65 minutes in 7 doses over a period of one month, showed no improvement, and discontinued attendance ; 1 discontinued attendance after only 3 weeks during which a treatment of 52 minutes in 6 doses had produced no improvement ; and the third, who was brought for loss of weight, anorexia, and malnutrition, continued to lose weight, had no return of appetite, and showed no improvement in his general condition at the end of 2 months' treatment comprising 144 minutes, divided into 16 doses. He has subsequently had bouts of pyrexia, and has been on that account transferred to the Tuberculosis Dispensary for observation.

The group of 3 Rickets cases is too small to afford material for comment, the more so as one child discontinued attendance after only 1 week, and a second after only 2 weeks. The one child who attended for a reasonable period (2 months) was able to obtain 12 doses, totalling 130 minutes, and he did show a general improvement, but no gain in weight.

Three cases of Alopecia Areata were treated. One discontinued attendance after only two weeks but his hair growth was restored—probably "post hoc" rather than "propter hoc". One case attended for two months to receive 157 minutes treatment in 17 doses. He showed marked improvement in general condition and slight increase in hair growth over the bald patch. The third has shown very great improvement in his general condition—he can no longer be described as a case of malnutrition—and there was at first a profuse downy growth of new hair on the bald patch, but this has subsequently disappeared for the most part and a new patch has appeared, contiguous with the old.

Of the two cases of chronic bronchitis, one showed no improvement in the chest condition and gained no weight, although the previous decline in weight was arrested while under treatment. He had a total dosage of 129 minutes in 12 doses over a period of 3 months. The other case showed a great improvement in general condition (debility) and the symptoms and signs of chronic bronchitis cleared up. He (a boy aged 9 years) had 3 months treatment comprising 280 minutes given in 20 doses.

There were two cases of Furunculosis. One (associated with malnutrition) was cured. The general condition was much improved and the child gained 2 lb. 8 ozs. while under treatment (3 months, 23 doses, 428 minutes). In the other case, the boils disappeared, but returned after treatment was finished. The period of treatment was 9 months (43 doses, 785 minutes). This same child had chorea, which was relieved under treatment and so far has not recurred.

The other cases, being single, call for no further comment, other than that already given in the table, but attention may be directed to A.F. (female, 11 years), who, before treatment, presented all the signs and symptoms of Commencing Fibrosis of the lung. After 3 months' treatment (426 minutes in 24 doses) clinical examination of the chest revealed no abnormal physical signs, and the child was entirely free from cough. Her weight, which had been stationary, had increased by 3 lbs. 8 ozs. Unfortunately, the chest was not X-rayed.

Conclusions.

1.—Certain cases of Malnutrition are benefited by exposure to general irradiation from a Mercury Vapour Lamp.

2.—The improvement is usually, but not necessarily, coincident with a gain in weight.

3.—To obtain any improvement in a child suffering from malnutrition it is desirable to give it a minimum total dosage of 200 minutes.

4.—It is not possible to foretell whether a case of malnutrition will benefit from Artificial Light Treatment or not.

Dr. J. H. Porter reports as follows regarding 7 cases referred by him for treatment at the Ashton-under-Lyne Artificial Light Clinic :—

Group 1.—Young children, from age 3—8 who are found on Medical Inspection in the Schools and Clinics to be suffering from Rickets or conditions which appear similar in their effect to Rickets.

(i) Number of cases treated, 3.

(ii) Type of lamp used : Mercury Vapour.

(*a*) Period of treatment : Average, 10⅓ weeks.
Maximum, 11 weeks.
Minimum, 9 weeks.

(*b*) Number of doses : Average, 20⅔ attendances.
Maximum, 21 attendances.
Minimum, 20 attendances.

(*c*) Strength of Doses : 20 minutes after reaching maximum in all cases.

(iii) Statement as to other forms of treatment : None.

(iv) Statement of Progress :—

(*a*) Improved. Discontinued treatment. Loss 16 ozs.

(*b*) Improved Discontinued treatment. Gain 10 ozs.

(*c*) Considerable improvement in general condition. Gain, 1 lb. 5 ozs. Discontinued owing to Impetigo.

(v) No special symptoms.

(vi) No unfavourable symptoms.

(vii) General Conclusions :—

Undoubtedly improved, but should have been carried to a conclusion.

Group 2.—Children found in School or at Clinics who show by the condition of their skin, by the presence of indolent sores, and similar conditions that they are suffering from a low state of vitality, and in whom a general stimulation of the skin may be expected to be of value.

(i) Number of cases treated : 4.

(ii) Type of Lamp used : Mercury Vapour.

(*a*) Period of treatment : Average, 8½ weeks.
Maximum, 14 weeks.
Minimum, 4 weeks.

(*b*) Number of doses : Average, 16¾ attendances.
Maximum, 27 attendances.
Minimum, 9 attendances.

(*c*) Strength of Doses : 20 minutes after reaching Maximum in all cases.

(iii) Statement as to other forms of treatment:—

In case (iv) (*a*), Local treatment for Keratitis given.

(iv) Statement of progress:—

(*a*) General condition much improved. Mother reported appetite considerably better. Gain 2 ozs.

(*b*) No improvement in general condition. Gain 6 ozs. Discontinued owing to Measles.

(*c*) Slight improvement. Loss 1 lb.

(*d*) Attendance too short. Discontinued owing to Impetigo.

(v) (*a*) Keratitis—Cured. No relapse since treatment.

(*b*) Blepharitis—No change.

(vi) No unfavourable symptoms.

(vii) General conclusions:—

Appeared to increase resistance.

Atherton and Westhoughton Artificial Light Clinics.

Dr. Leigh reports as follows:—

(i.) (*a*) Atherton children of school age. Total number treated... ... 39

Summary of defects:

Rickets	4
Chronic Eczema	1
Anæmia and Debility	4
Catarrhal	9
Malnutrition	8
Alopecia	2
Adenitis (cervical)	4
Keloid Scar	1
Furunculosis	3
Rheumatism	3

(*b*) Westhoughton children of school age. Total number treated ... 20

Summary of defects:—

Malnutrition	8
Furunculosis	4
Adenitis (cervical)	4
Catarrhal	5

(ii.) Type of lamp used: Quartz Mercury Vapour.

(*a*) Average period of treatment	16 weeks
Maximum period of treatment	9 months
Minimum period of treatment	1 month
(*b*) Average number of doses	29
Maximum number of doses	63
Minimum number of doses	7

(*c*) Strength of Doses: Varies from 2 to 15 minutes at distance of three feet.

(iii.) Except two cases in receipt of Cod Liver Oil, treatment was by Artificial Light alone.

(iv.) The majority of cases shows progressive improvement. This is not so evident from reference to height and weight as by the appearance of the children who seem brighter and in better general health. The latter features are confirmed by the statements of mothers.

(v.) Disappearance of cough, pallor and flabbiness in the cases of catarrh and malnutrition. Marked improvement in 6 of the 8 cases of cervical Adenitis. The remaining two cases have not progressed at all. Septic skin affections are markedly influenced.

(vi.) In no case have unfavourable symptoms been observed.

(vii.) As will be gathered from above, most of the children of school age appear to have derived distinct benefit from the treatment. I believe this to be the most one can say as the result of two years experience.

In none of the cases could a progressive improvement be seen comparable with the changes observed in the cases of Rickets of pre-school age.

As regards the value of local application of the rays in such cases as Adenitis, Keloid, Alopecia, etc., I feel it is necessary to investigate greater numbers before attempting to assess this.

Atherton children of pre-school age :

Total number treated	46
Average number of doses per case	17

Summary :

Rickets	29
Ichthyosis	1
Catarrhal conditions	8
Keloid Scar	1
General debility...	7

Without exception the treatment has been markedly successful. This particularly applies to the cases of Rickets.

As a rule there is an initial loss of weight followed by progressive gain and general improvement.

This improvement is strikingly noticeable, and the mothers say the children are " Different, happier, and more easily managed."

The physical signs of Rickets disappear, and no doubt remains as to the value of this clinic in connection with Child Welfare work.

Chorley Artificial Light Clinic.

Dr. G. G. Johnstone referred 6 cases to the Chorley Artificial Light Clinic for treatment with the following results :—

Case No.	Age.	Results.
1	3	Debility after pneumonia. Forty-four visits paid to the Clinic. There was slight increase in the weight. Appetite soon returned and the general condition improved. The case was finally discharged very much better.
2	9	Cervical Adenitis. Ninety-two visits paid to the Clinic. Gained 9 lbs. in weight. Glands almost gone. General condition much improved.
3	6	Cervical Adenitis. Fifty-seven visits paid to the Clinic. Small gain in weight. Glands are smaller. General condition improved. Treatment interrupted by Influenza and Mumps.
4	8	Nervous debility after Tonsillitis. Paid forty-three visits to the Clinic. Slight gain in weight. Sleeping and eating much improved. Parents stopped bringing child of their own accord. General condition very much better.
5	7	Cervical Adenitis. Paid ninety visits to the Clinic. Gained over half a stone. General condition much improved. Glands much smaller.
6	8	Cervical Adenitis and general debility. Paid eighty visits to the Clinic. Slight gain in weight. Appetite improved. Glands much smaller. Treatment interrupted by Tonsillectomy followed later by another attack of Tonsillitis and septic fingers.

Dr. G. G. Wray also sent 3 cases to the Chorley Clinic and reports on their treatment as follows :—

Case No. 1.—Male (5), of Leyland :

Late Rickets and Bronchitis.

Result : Quite cured after Ultra Violet Ray.

Case No. 2.—Female (8), of Whittle-le-Woods :

Bronchiectasis.

Result : Very much improved after removal of tonsils and adenoids and Ultra Violet Ray.

Case No. 3.—Male (3), of Leyland :

Rickets. Child been twice in Rochdale Crippled Childrens' Home. Attending very irregularly for Ultra Violet Ray. Home conditions and financial resources are poor.

Result : No definite improvement owing to irregular attendance.

Horwich Artificial Light Clinic.

Dr. J. R. Jagger submits the following Summary and report on the 28 cases referred by him for treatment at the Horwich Artificial Light Clinic during 1930 :—

Case.	Sex.	Age.	Complexion.		Disease or Defect.	Duration of Treatment.	Weight + or – after Treatment.	Observations.
			Hair.	Eyes.				
E.W.	F.	11	Dark	Dark	Rheumatic Endocarditis ...	L.	+	Gain in wt. Genl. improvement.
A.W.	F.	3	Fair	Grey	Enlarged cervical glands ...	L.	±	No gain in wt. Glands subsided.
J.T.	M.	12	Fair	Grey	Lupus	L.	±	No gain in wt. Lupus cured.
M.S.	F.	7	Fair	Blue	Tubercular cervical glands	L.	+	Glands hardened and partially absorbed.
J.S.	M.	10	Fair	Blue	Anæmia, gastritis, malnutrition	L.	+ Slight	Slight gain in wt. General condition improved.
L.S.	M.	10	Fair	Blue	Enlarged cervical glands. Cough due ? bronchial glands	L.	+ +	Gain in wt. marked. Cough still present.
R.P.	M.	6	Dark	Blue	Debility : Chronic Purulent Otitis Media	S.	±	No apparent change. Weight oscillates
F.P.	F.	7	Fair	Blue	Enlarged cervical glands. Cough	S.	–	Nocturnal rise in temperature. Treatment stopped.
R.P.	F.	7	Dark	Blue	Anæmia	S.	–	No improvement.
R.P.A.	M.	6	Fair	Blue	Cervical adenitis, Enlarged Mesenteric glands ...	L.	–	Glands slightly less. Muscle tone improved.
P.A.	F.	8	Fair	Blue	Tubercular cervical adenitis	L.S.	+	Glands less. Health improved.
R. Mc.G.	M.	6	Fair	Blue	Enlarged cervical glands. Bronchitis	L.	±	Glands less ; otherwise no change.
J.M.	M.	6	Fair	Grey	Malnutrition. Gastric Catarrh	L.	±	No change.
D.M.	F.	7	Fair	Blue	Cervical adenitis	S.	–	Temperature increased. Glands incised, scraped and drained.
J.M.	F.	5	Dark	Brown	Anæmia	L.S.	+	Muscular tone, weight and colour of mucous membranes improved.
M.H.	F.	10	Fair	Grey	Gastric catarrh	L.S.	±	No change.
A.G.	M.	5	Fair	Blue	Tubercular peritonitis ...	L.S.	+	Slight improvement in muscle tone and appetite.
D.M.G.	F.	6	Fair	Hazel	Rickets ; anæmia	L.	+	Health and activity increased.
A.G.	F.	9	Fair	Grey	? Abdominal tuberculosis ...	L.	+	Gain in wt. and general health marked.
O.D.	F.	5	Dark	Blue	Post Pneumonic ; anæmia...	S.	–	Swinging temperature ; recurrence of pneumonia ; treatment stopped.
O.C.	F.	10	Fair	Dark	Eczema	L.	+	Cured.
V.C.	M.	10	Fair	Grey	Lupus...	L.	±	Cured.
F.C.	F.	8	Dark	Dark	Anæmia	L.	+	Colour of mucous membranes and general health improved.
L.B.	M.	7	Dark	Brown	Corneal ulcer ; enlarged cervical glands	L.	+	Cured.
J.B.	F.	8	Fair	Blue	Anæmia ; enlarged tonsils	L.	±	Anæmia cured ; tonsils less.
J.A.	F.	9	Dark	Dark	Anæmia	S.	+	Much improved.
T.A.	M.	13	Fair	Grey	Eczema	L.	+	Cured.
B.A.	F.	12	Brown	Blue	Rheumatic Synovitis ...	L.	±	Rheumatic synovitis cured.

L. = longer than three months period of treatment.
S. = less " "
L.S. = the average period of treatment, *i.e.*, three months.
± = where the weight oscillates during treatment and there is no final gain or loss.

Twenty-eight children have received treatment by Ultra Violet Rays at the Horwich Clinic during the year 1930, and observations have been made on these cases on the lines indicated in my report for 1929. The cases have all been " selected ones." Some have been chosen for the treatment of some definite clinical condition such as lupus and cervical adenitis, and others for the treatment of ill-health and malnutrition where physical signs are indefinite or lacking, and where there has been no obvious cause found for the child's condition. Treatment has been given twice weekly and both local and general radiation have been applied. The apparatus used consists of one carbon arc lamp and three Kelvin-Bottomley Mercury Vapour lamps of the atmospheric type.

On the whole there has been a definite improvement in the condition of the patients at the end of treatment. The improvement in one or two cases has been surprising, while in others it has been very disappointing. And again, some of the cases which have shown improvement at the end of treatment have relapsed to their initial condition after a month or more of discontinuance of treatment. Another point I have noted is that where a child has relapsed after cessation of treatment, the re-introduction of Ultra Violet Ray Medication does not reproduce the beneficial effect of the first treatment. He appears to be indolent and unreactive to the Ultra Violet Rays again. He may even appear to have less resistance to the disease from which he suffered originally.

In reviewing the results of treatment by Ultra Violet Rays, one must not lose sight of the fact that other treatments are for the most part being administered to these patients. The Ultra Violet Rays are not given alone, and one cannot determine how much of the improvement is due to other factors, *e.g.*, diet, and cod liver oil, in rickets ; iron and arsenic in anæmia, etc.

Another matter which to my mind has a beneficial effect and is often overlooked, is what one might term the "hygienic effect" of the administration of Ultra Violet Light, which has nothing at all to do with the action of the light itself. It consists in the facts that the patient *must* have a bath twice a week at least ; a large skin area comes in contact with "cold" and "warmth" during treatment, and in this way the "skin reflex" becomes activated, and the normal functional role of the skin encouraged. After all, we apply Ultra Violet Rays to stimulate this normal functional activity whether we think of it in terms of Calcium ions and cholesterol or more simply as hygiene, fresh air, and sunlight. In this connection it might be well to observe how frequently a young rickety child is presented at a clinic whose appearance is that of a small pale bossy moist cranium protruding from a voluminous mass of clothes. The child's skin receives no stimuli from air or change of temperature, and often the undergarments are stitched around the child's body.

When one comes to consider the therapeutic value of Ultra Violet Rays in the light of the results obtained, one is led to the opinion that it is of real value only in specific cases as an adjunct to other therapeutic measures. The diseases in which it is used to most advantage are :—

(i.) Rickets.

(ii.) Lupus and glandular tuberculosis.

(iii.) Anæmia, especially cases resulting from the exanthemata and post operative tonsillar conditions.

Accidents to School Children.

During the year 340 accidents to children in school were reported. This compares with 311, 364 and 258 for the previous three years.

The following first-aid materials are provided on the Schedule of School Supplies :—

Gauze Bandages, 1 in. in lengths of 6 yards.
Do. 2 in. do.
Boric Lint in rolls of 2 oz.
Cotton Wool in cartons of 4 oz.
Adhesive Plaster on ½-in. spools, 2½ yards long.

CRIPPLING DEFECTS AND ORTHOPÆDICS.

The arrangements for dealing with crippled children were fully described in the Annual Report for 1927. Since the publication of the report for 1929 the scheme has been further increased by the inclusion of the following Authority :—The Urban District of Waterloo-with-Seaforth.

. The following table shows the number of children treated during 1930 :—

	Ancoats Hospital.	Biddulph Hospital.	Ethel Hedley Hospital.	Rochdale Crippled Children's Home.	Myrtle Street Hospital.	Heswall Country Hospital.
In-patients, 1st Jan. 1931	...	84	17	15	2	17
Admitted during the year	4	175	27	30	35	23
Discharged during the year	4	172	31	31	26	24
Remaining on 31st Dec., 1930	...	87	13	14	11	16

AFTER CARE CENTRES.

The following is a summary of the work done during the year in the After Care Centres :—

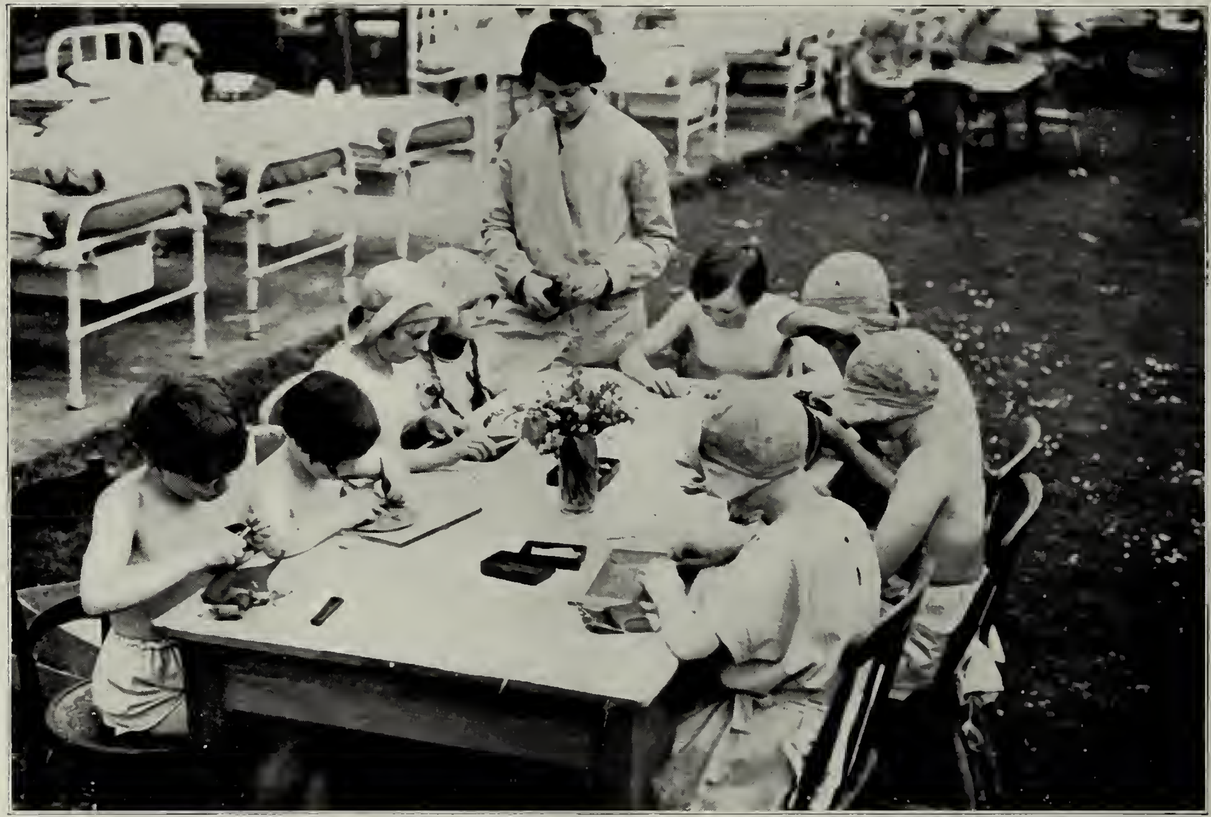
No. of individual children attended	3,080
Total number of attendances made	10,259
No. of children referred to Consultant Orthopædic Surgeon at Hospital (Ancoats or Myrtle Street)	218
No. of children recommended operative treatment by Orthopædic Surgeons at Centre or Hospital	454
No. of Plasters made at Centre	169
No. of Surgical Appliances, *e.g.*, boots, irons, etc., supplied through Centre	1,467
No. of children given remedial exercises	888
No. of children for whom treatment has been refused by parents or guardians	83

The following table shows the defects from which the children seen in the After-Care Centres were suffering :—

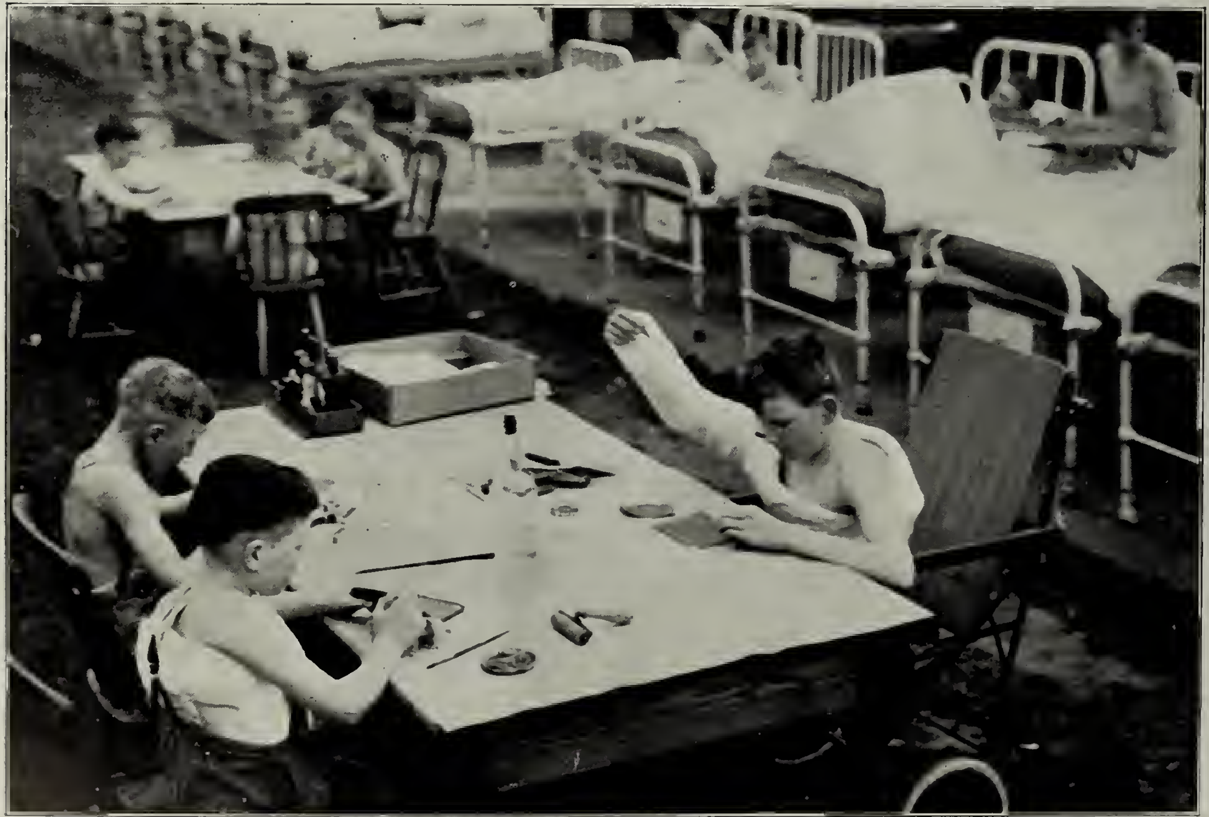
Paralysis—	
(*a*) Infantile—Upper Limb ...	32
Lower Limb ...	307
Upper and Lower Limbs	14
(*b*) Spastic—Monoplegia ...	13
Diplegia	17
Paraplegia... ...	75
Hemiplegia ...	140
(*c*) Birth Palsy	68
(*d*) Post Diphtheritic Paralysis	3
Deformities, Congenital—	
Hydrocephalus	8
Cleft Palate	5
Scoliosis	25
Sprengel's Shoulder	9
Rudimentary and Malformed Limbs	19
Talipes Equino Varus	132
Talipes Equino Valgus	21

BIDDULPH ORTHOPAEDIC HOSPITAL
(GENERAL VIEW).

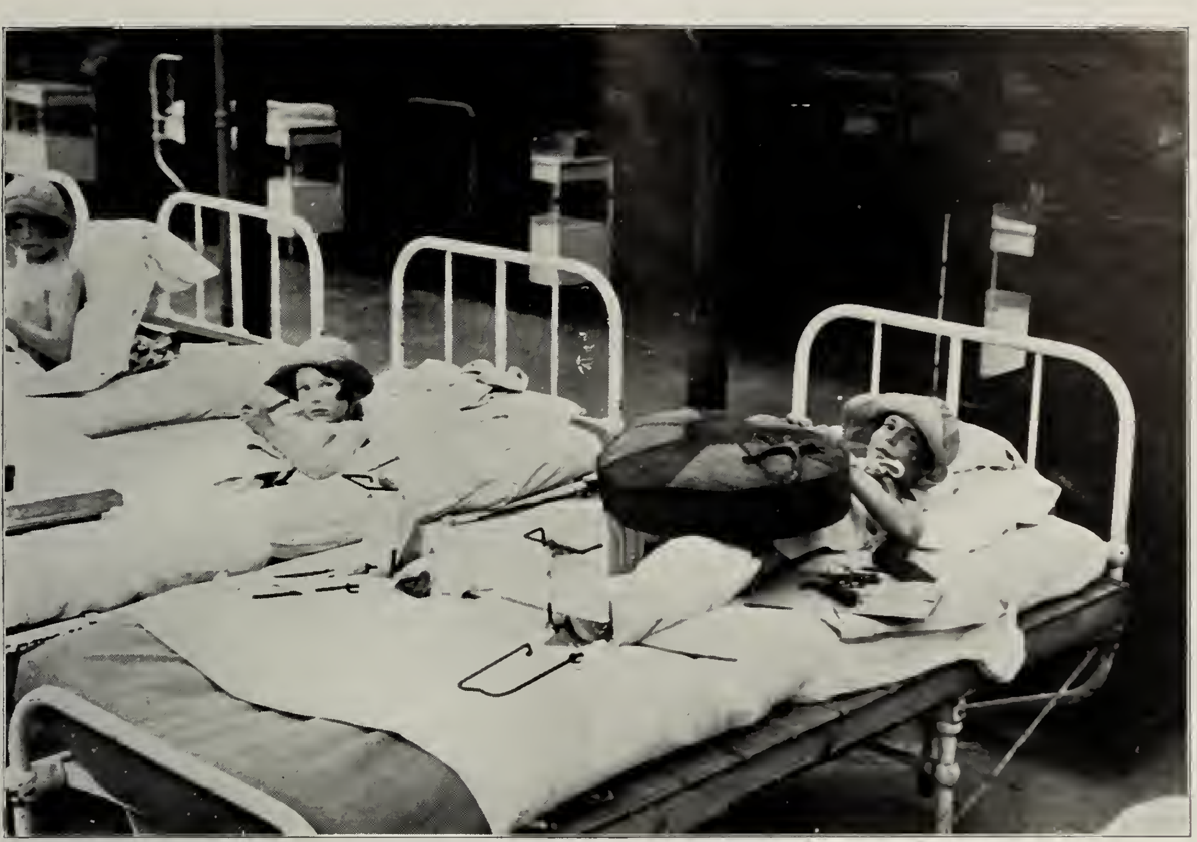
INSTRUCTION IN THE GYMNASIUM.



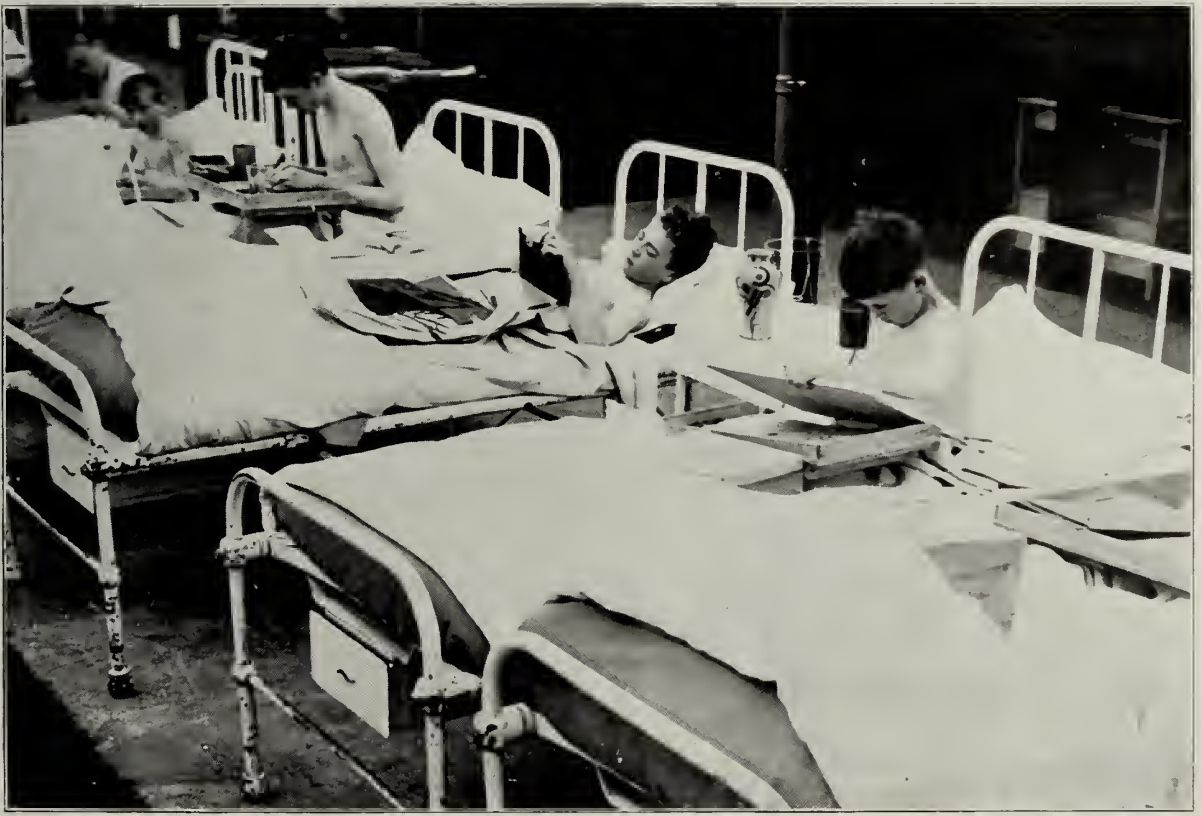
HANDICRAFT CLASS IN SESSION (Girls).



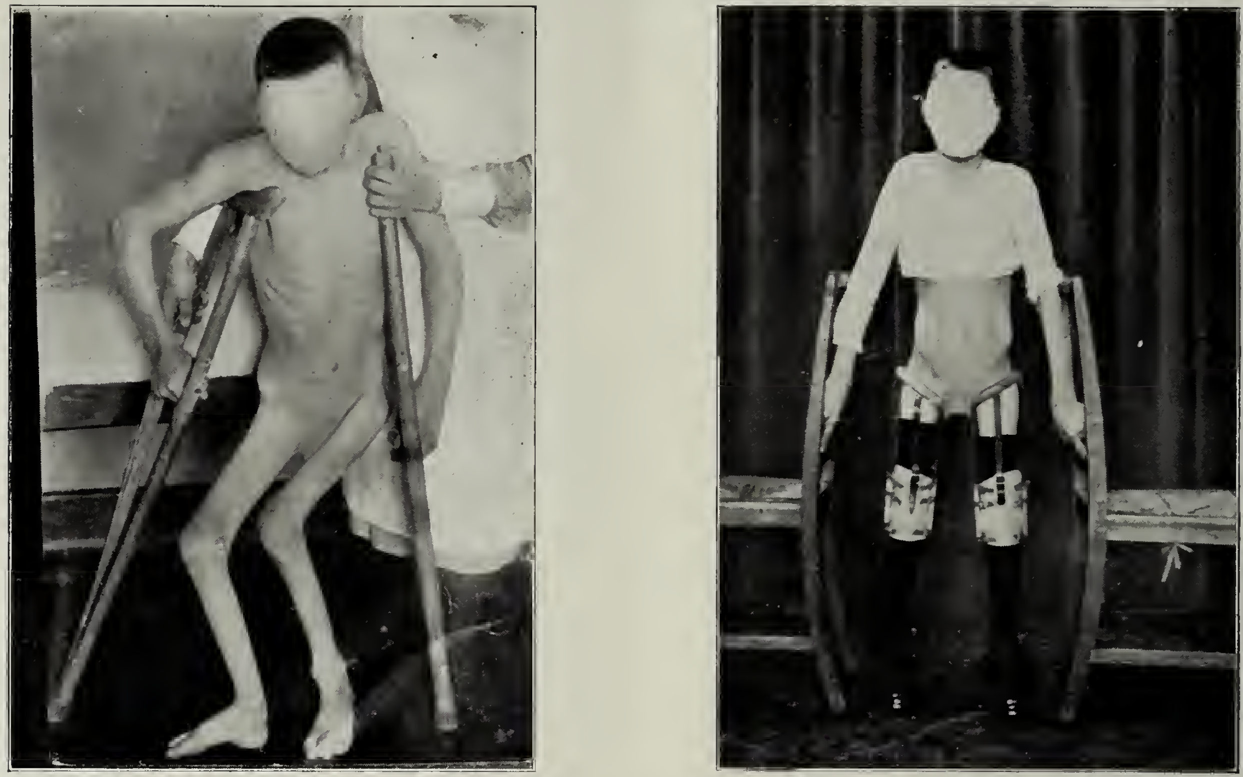
HANDICRAFT CLASS IN SESSION (Boys).



HANDICRAFT WORK IN BED (GIRLS).

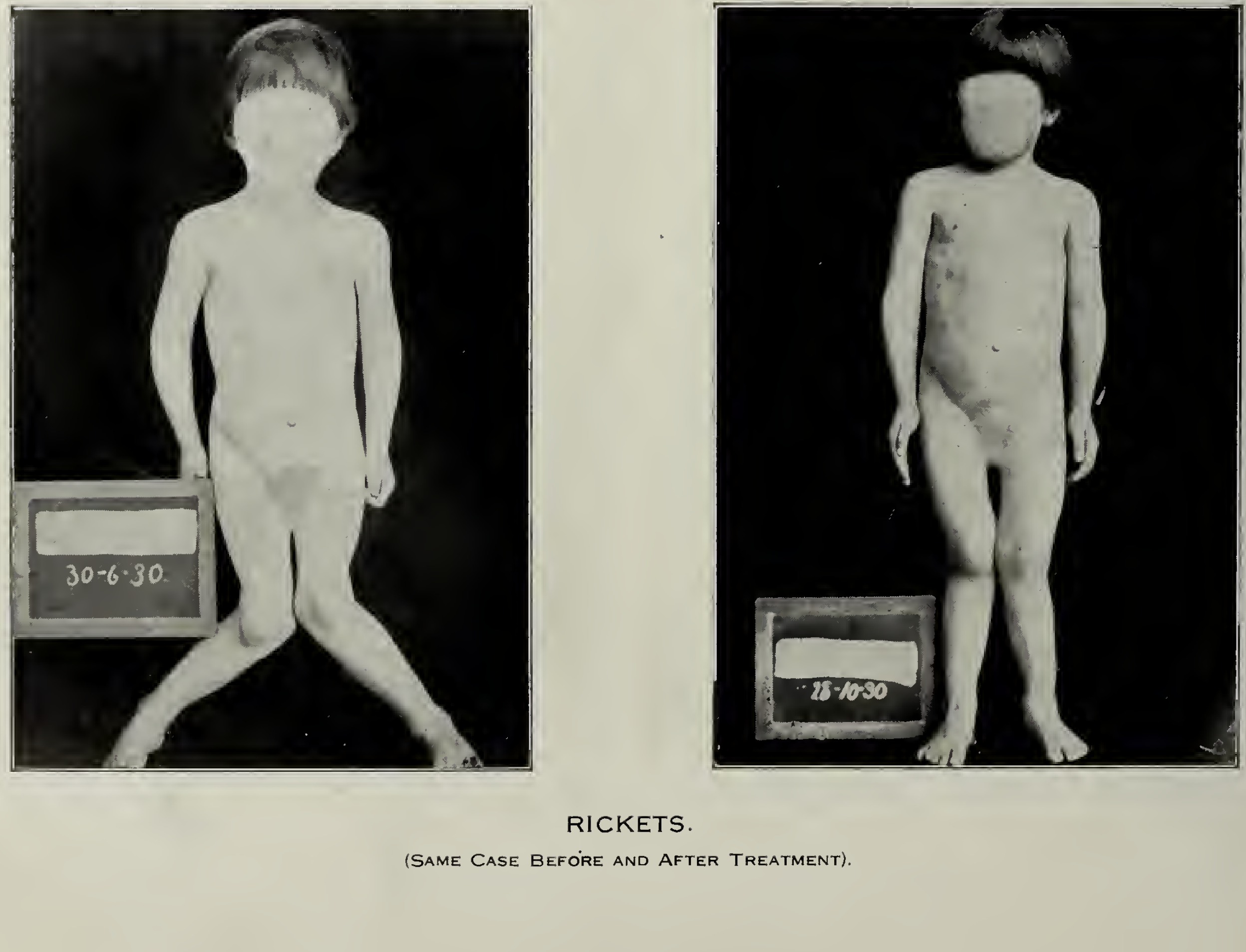


HANDICRAFT WORK IN BED (BOYS).



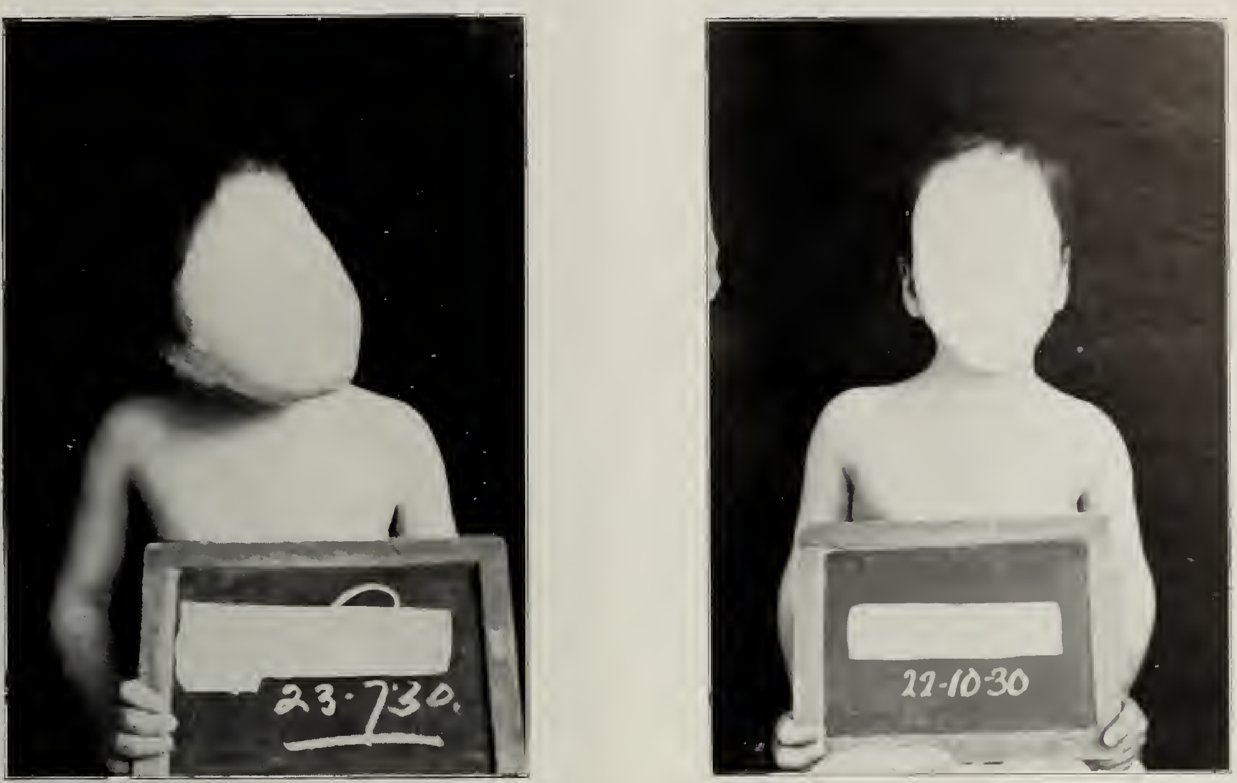
INFANTILE PARALYSIS.

(Same Case Before and After Treatment).



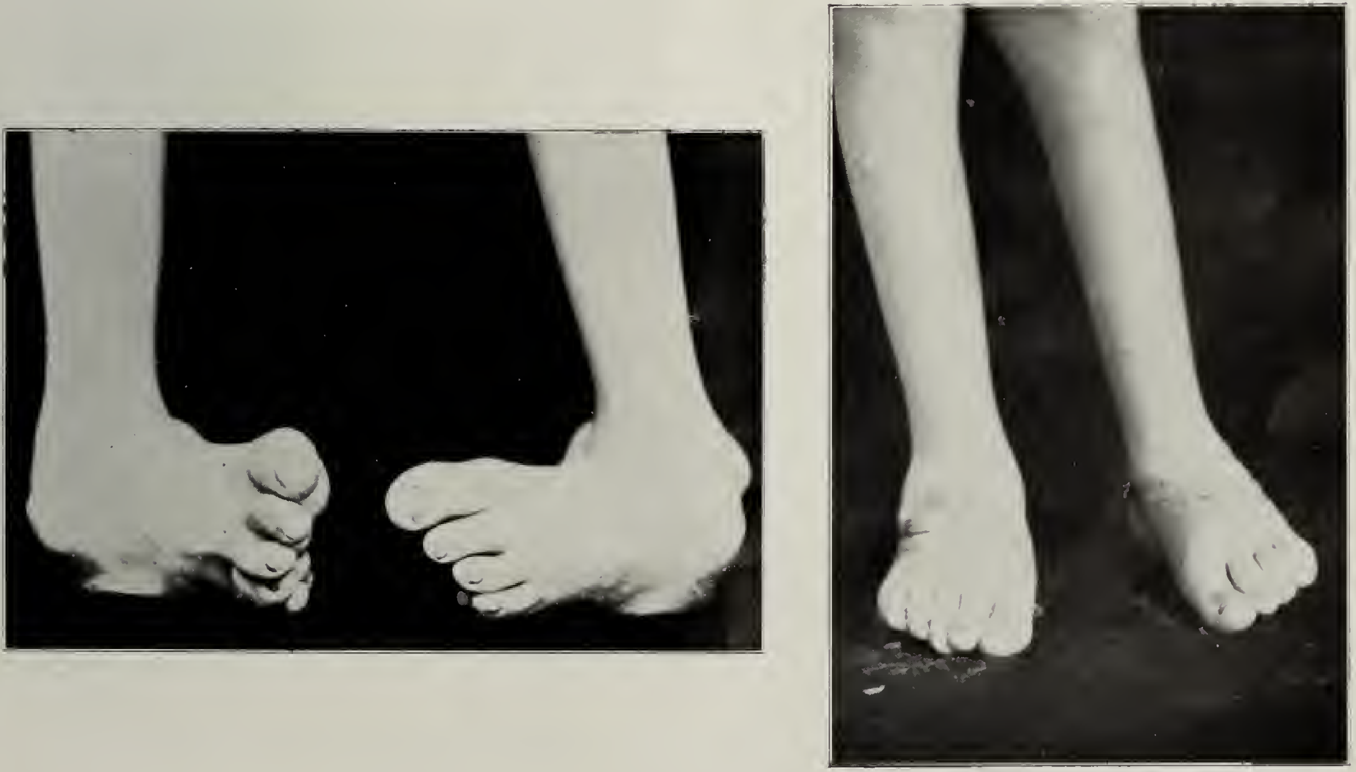
RICKETS.

(Same Case Before and After Treatment).



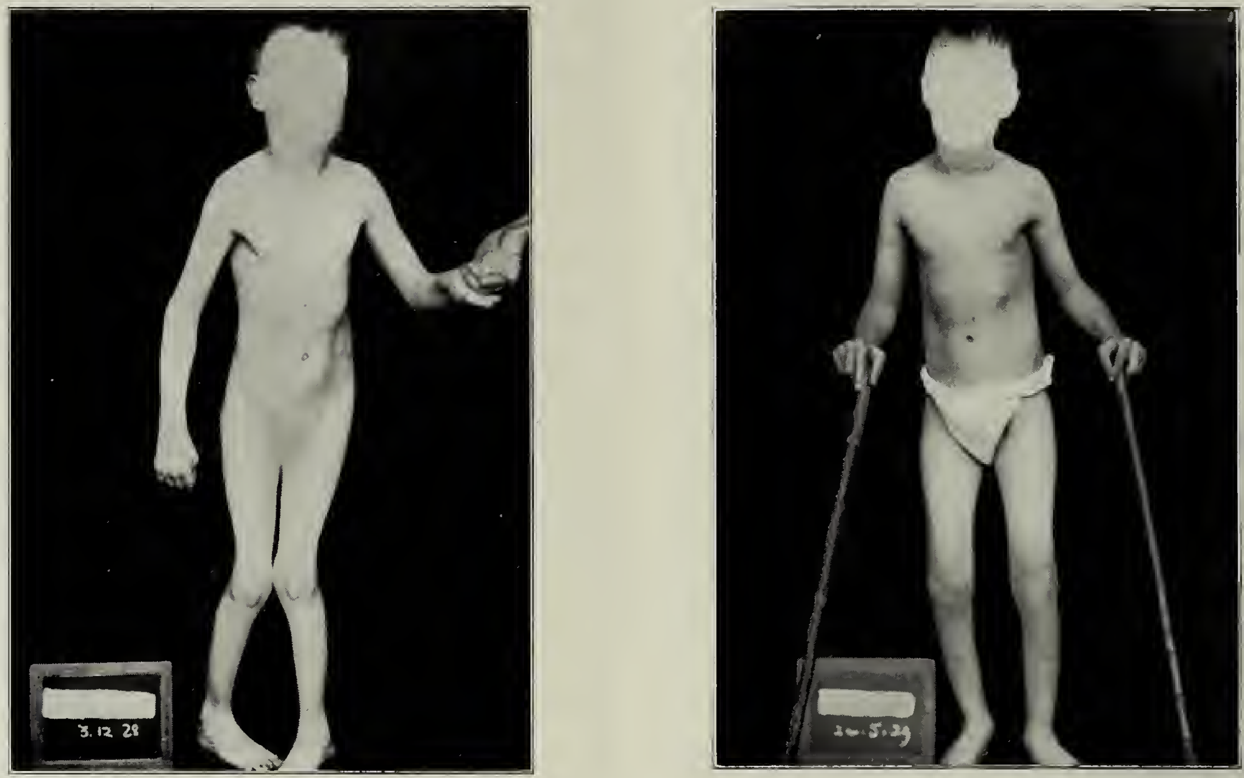
TORTICOLLIS.

(Same Case Before and After Treatment).



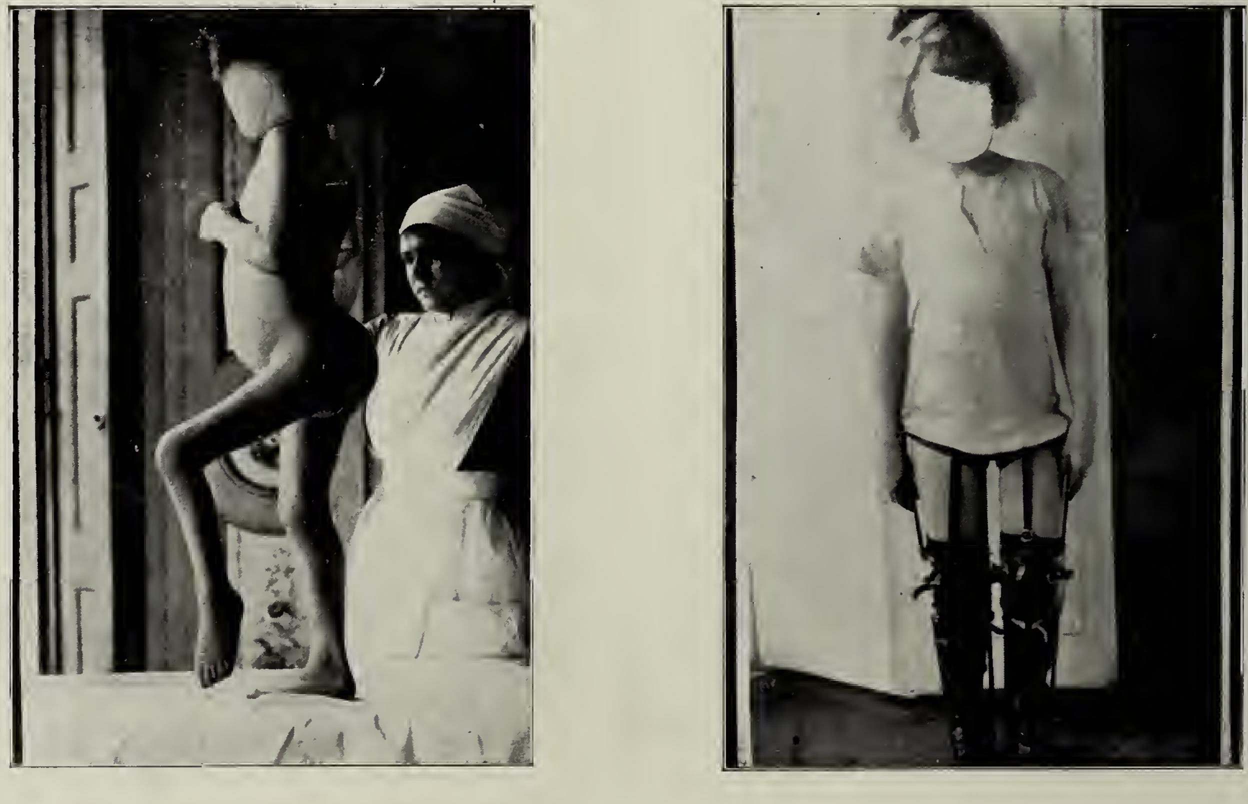
CONGENITAL TALIPES EQUINO VARUS

(Same Case Before and After Treatment).



SPASTIC PARAPLEGIA.

(Same Case Before and After Treatment).



OLD TUBERCULAR HIP.

(Same Case Before and After Treatment).

Pes Calcaneus	20
Torticollis	102
Torticollis, Spasmodic	4
Spina Bifida	20
Spina Bifida with Club Foot	8
Achondroplasia	1
Metatarsus Varus	29
Absence of Bones	4
Club Hand	2
Dislocation of Hip	57
Subluxation of Hip	1
Contractions	5
Syndactylism	10
Fragilitas Ossium	1
Wedged Vertebra	1
Adduction Fifth Toe	8
Supernumerary Digits	2
Other Deformities	22

Deformities, Traumatic—

Fractures of Upper and Lower Limbs	95
Subluxations	2
Dislocations	2
Displaced Epiphysis	2
Displaced Cartilages	3
Contusions	5
Tendons	7
Amputations	4
Sprains	3
Intra Uterine Amputation of Hand	1
Intra Uterine Amputation of Hand and Foot	1
Coxa Vara	10
Nerve Injuries	4
Other Deformities	12

Deformities, Other—

Pronated Feet	62
Pes Cavus	31
Calcaneo Valgus	1
Pes Varus	18
Pes Planus	113
Genu Recurvatum	1
Claw Feet	20
Hallux Valgus	5
Hallux Rigidus	4
Scoliosis	85
Kyphosis	60
Lordosis	5
Synostosis Radius and Ulna	5
Pseudo Coxalgia	21
Hammer Toes	18
Birth Fractures	3
Miscellaneous	28

Rickets—

Genu Varum	310
Genu Valgum	331
Genu Valgum and Coxa Vara	6
Coxa Vara	3
Genu Varum and Coxa Vara	8
Generalised	38
Acute	26
Renal	3

Inflammations—

Arthritis	27
Arthritis, Suppurative	12
Arthritis, Infective	14
Periostitis and Osteitis	7
Perthe's Disease	8
Synovitis	32
Bursitis	12
Epiphysitis	2
Schlatter's Disease	5
Keloid Scars	7
Osteomyelitis	22
Other	5

Tuberculosis—

Active—	Knee	7
	Hip	4
	Spine	8
	Dactylitis	2
	Ankle	3
Old—	Knee	11
	Spine	20
	Hip	12
	Elbow	2
	Ankle	2
	Multiple	2

Tumours—

Bursae	1
Exostosis—Multiple	2
Upper Limb	2
Lower Limb	7
Naevus	1
Elephantiasis	1
Sarcoma	1
Ganglion	10
Chondroma	1
Fibroma	1
Lipoma	1
Cyst	14
Unclassified	8

Nervous Diseases—

Mental Deficiency	13
Encephalitis Lethargica	3
Polio Encephalitis	5
Other Medical Neuroses	18

Miscellaneous—

Kohler's Disease	3
General Muscular Hypotonia	2
Ingrowing Toe Nail	1
Hemihypertrophy	3
Empyema	3
Unilateral hypertrophy	1
Malnutrition	2
Unclassified	210
	3080

The following table shows concisely the work done during the year in the Hospitals with which the Committee has arrangements :—

Defect.	No. of Cases treated.	Cured.	Improved.	Died.	Refused Treatment.	Stationary.
Infantile Paralysis	37	1	34	...	...	2
Spastic Paralysis	20	...	19	...	...	1
Birth Palsy	6	...	6	...	...	...
Deformities—						
Congenital	65	9	47	2	2	5
Traumatic	12	3	7	...	...	2
Other...	23	4	19	...	...	...
Rickets	80	44	35	...	...	1
Inflammations—						
Arthritis	5	1	4	...	...	...
Osteomyelitis	3	. .	1	...	...	2
Tumours—						
Exostosis	2	1	1	...	...	...
Lipoma	1	...	...	...	...	1
Tuberculosis—						
Old Tubercular Hip ...	4	1	2	...	...	1
Totals	258	64	175	2	2	15

The following table shows the number and character of the operations performed at the Committee's Hospital at Biddulph from 1st January to 31st December, 1930 :—

		No. of Operations.	
Infantile Paralysis ...	Claw Foot	12	
	Stabilisation of Foot	7	
	Tendon Transplantation	10	
		—	29
Spastic Paralysis ...	Sciatic Neurotomy	4	
	Obturator Neurotomy...	2	
	Division of Hamstrings	1	
	Elongation of Tendo Achillis ...	8	
	Claw Foot	4	
		—	19
Birth Palsy	Division of Internal Rotators ...	2	
	Arthrodesis	1	
	Division of Acromion Process ...	1	
		—	4
Congenital Torticollis ...	... ...		14
Congenital Dislocation of Hip ...	Manipulation	4	
	Construction of Acetabular Shelf ...	7	
	Traction by Pin	1	
	Osteoclasis	1	
		—	13
Congenital Club Foot ...	Stabilisation	4	
	Wrench	5	
	Capsulotomy	3	
		—	12
Congenital Claw Foot ...	... ...		2

		No. of Operations.	
Rickets	... Osteotomies	16	
	Osteoclasis	7	
		—	23
Tuberculous Arthritis	... Extra-articular Arthrodesis ...		1
Coxa Vara ...	... Trans-trochanteric Osteotomy ...		3
Infective Arthritis	... Trans-trochanteric Osteotomy ...	2	
	Open Reduction and insertion of Traction Pin	2	
	Osteotomy	1	
		—	5
Fractures... ...	... Un-united	1	
	Mal-united	1	
		—	2
Miscellaneous ...	... Ankylosis of Jaw, Plastic Repair ...	1	
	Pes Planus	1	
	Contracture of Finger	2	
	Exostoses	3	
	Club Hand	1	
	Subluxation lower end of Ulna ...	1	
	Internal derangement of Knee ...	1	
	Minor Operations	5	
		—	15
			142

During the year 175 cases were admitted to Biddulph Hospital and the following table gives particulars of the defects from which these children were suffering :—

Bone Diseases ...	... Infantile Rickets	25	
	Adolescent Rickets	6	
	Renal Rickets	2	
	Osteomyelitis	2	
	Tuberculosis	4	
	Neoplasms (simple)	3	
		—	42
Bone Injuries ...	... Fractures	6	
Joint Deformities	... Congenital Dislocation of Hip ...	8	
	Congenital Dislocation of Shoulder	1	
		—	9
Joint Diseases ...	... Tuberculosis	4	
	Infective Arthritis	13	
	Pseudo-coxalgia	4	
	Ankylosis	1	
		—	22
Joint Injuries ...	... Subluxation	1	
	Internal Derangement	1	
		—	2
Tendon Diseases	... Tenosynovitis	1	
	Ganglion	2	
		—	3
Skin and Subcutaneous Tissues	Burns		1
Nervous System :—			
(1) Central ...	... Spastic Paraplegia	8	
	Infantile Hemiplegia	3	
	Anterior Poliomyelitis...	24	
(2) Peripheral	... Birth Palsy	6	
	Injuries	1	
		—	42

Deformities :—

(1) Congenital ...	Torticollis	15	
	Club Hand	1	
	Sprengel's Shoulder	1	
	Contracture of Fingers	1	
	Polydactyly	1	
	Talipes Equino Varus	9	
	Coxa Vara	1	
	Spina Bifida	1	
	Scoliosis	3	
		—	33
(2) Acquired	Genu Valgum	16	
	Genu Varum	8	
	Hammer Toe	2	
	Flat Foot	4	
	Pes Cavus	9	
	Scoliosis	3	
		—	42
			202

The number of plasters applied during the course of treatment of these cases for the year was 355. During the year 5,850 treatments have been given in the Massage Department.

Massage only ...	1,164
Electrical ...	358
Radiant Heat...	751
Exercises ...	3,577

Artificial sunlight was again carried out regularly two or three times a week during the winter months for all cases in which it was considered beneficial.

During the year there was a slight outbreak of Measles. The cases were treated at the Stoke-on-Trent City Infectious Disease Hospital at Bucknall. There was one death, a baby of 10 months dying of pneumonia.

The following figures relating to the rainfall at Biddulph during the year under review may be of interest :—

Month.	Jan.	Feb.	Mar.	Apl.	May	June	July	Aug.	Sep.	Oct.	Nov.	Dec.	Total rainfall for year.
Total rainfall	4·07	0·33	2·22	3·14	2·07	2·29	6·66	4·21	4·02	4·91	3·73	3·71	41·36 ins.

STATISTICS OF MEDICAL TREATMENT.

The following tables show the amount of treatment which has been obtained during 1930. The kind of treatment and the results are also specified.

The first set of tables gives this information about those children who were examined at the routine medical inspection immediately preceding, *i.e.*, in general, those children whose medical inspection took place in 1929.

TREATMENT OF DEFECTS.

New Cases.

Disease or Defect.	Number of Children.								
	Referred for Treatment.	Treated.			Result.			Untreated.	No Information.
		Under Authority's Scheme.	Otherwise.	Total.	Cured.	Improved.	Unchanged		
Minor Ailments (Skin)—									
Ringworm—Scalp ...	77	30	43	73	64	6	3	...	4
Ringworm—Body ...	28	11	15	26	26	...	...	...	2
Scabies	36	18	15	33	33	...	...	1	2
Impetigo	392	202	183	385	372	10	3	2	5
Other Skin Disease ...	284	98	161	259	213	41	5	7	18
Ear Disease	613	213	245	458	256	168	34	72	83
Eye Disease (external and other)	411	186	172	358	265	77	16	26	27
Dental Disease	2909	1094	612	1706	1219	450	37	757	446
Other Diseases	1481	508	609	1117	517	545	55	183	181

TREATMENT OF VISUAL DEFECT.

Number of Children.													
Referred for Refraction.	Submitted to Refraction.				Result of Refraction.							Not Refracted.	No information.
	Under Authority's Scheme—Clinic or Hospital.	By Private Practitioner or Hospital.	Otherwise.	Total.	Under Authority's Scheme—Clinic or Hospital		By Private Practitioner Hospital or otherwise.		Treatment other than by Glasses.		For whom no Treatment was considered necessary.		
					Glasses Prescrbd.	Glasses Obtained.	Glasses Prescrbd.	Glasses Obtained.	Recommended.	Received.			
2767	1845	95	155	2095	1715	1611	226	177	37	32	117	437	235

TREATMENT OF DEFECTS OF NOSE AND THROAT.

Referred for Treatment.	Number of Children.				Untreated.	No information.
	Received Operative Treatment.			Received other forms of Treatment.		
	Under Authority's Scheme—Clinic or Hospital.	By Private Practitioner or Hospital.	Total.			
1793	798	124	922	135	568	168

The following set of tables gives similar information about those children who were recommended to obtain treatment at any inspection prior to the last :—

TREATMENT OF DEFECTS.

Old Cases.

DISEASE OR DEFECT.	NUMBER OF CHILDREN.								
	Referred for Treatment.	Treated.			Result.			Untreated.	No Information.
		Under Authority's Scheme	Otherwise.	Total.	Cured.	Improved.	Unchanged		
Minor Ailments (Skin)—									
Ringworm—Scalp ...	28	8	19	27	27	...	...	...	1
Ringworm—Body ...	11	6	5	11	10	...	1	...	...
Scabies	8	2	6	8	8	...	...	...	...
Impetigo	43	14	24	38	37	1	...	1	4
Other Skin Disease ..	47	9	31	40	32	4	4	2	5
Ear Disease	176	33	53	86	54	26	6	29	61
Eye Disease (external and other)	84	25	28	53	39	8	6	18	13
Dental Disease	590	117	117	23	104	122	8	185	171
Other Diseases	345	70	95	165	57	100	8	72	108

TREATMENT OF VISUAL DEFECT.

Referred for Refraction.	NUMBER OF CHILDREN.												
	Submitted to Refraction.				Result of Refraction.							Not Refracted.	No information.
	Under Authority's Scheme—Clinic or Hospital.	By Private Practitioner or Hospital.	Otherwise.	Total.	Under Authority's Scheme—Clinic or Hospital		By Private Practitioner, Hospital or otherwise.		Treatment other than by Glasses.		For whom no Treatment was considered necessary.		
					Glasses Prescrbd.	Glasses Obtained.	Glasses Prescrbd.	Glasses Obtained.	Recommended.	Received.			
564	181	17	69	267	171	146	65	36	5	4	26	133	164

TREATMENT OF DEFECTS OF NOSE AND THROAT.

Referred for Treatment.	NUMBER OF CHILDREN.					
	Received Operative Treatment.			Received other forms of Treatment.	Untreated.	No information.
	Under Authority's Scheme—Clinic or Hospital.	By Private Practitioner or Hospital.	Total.			
663	155	29	184	33	276	170

OPEN-AIR EDUCATION.

Arrangements are in force with the County Boroughs of Burnley, and Preston, The Municipal Borough of Nelson and Urban District of Swinton and Pendlebury, whereby certain children are enabled to receive education at their open-air schools.

There are no special open-air schools in the area of the Lancashire Education Committee, although the newer schools now offer increased facilities for open-air classes of which advantage is taken whenever the opportunity offers.

PHYSICAL TRAINING.

The physical training, as described in previous Reports, is under the general supervision of the County Medical Officer and his staff. During the year the Inspector of Physical Exercises visited 389 schools (418 Departments) and examined the children in physical exercises and organised games.

The following is extracted from the Report of the Director of Education :—

ORGANISED GAMES.

1.—Review of Reports, 1930–31.

The Reports from Games Associations to which grants have been made by the Committee in the past year indicate that the progress noted in previous years is being maintained. New Associations have been formed in areas where hitherto local circumstances prevented their formation, so that practically all schools in the County area which can conveniently be attached to an Association are now included in the County Scheme.

The activities of existing associations noted in last year's report have been continued during the past year, and much progress has been made in the internal organisation of the Associations. A large amount of steady improvement in the fixture lists, in the development of healthy leagues, and in enlisting the co-operation and interest of the general public is apparent in nearly all districts. Some of the best and most flourishing Associations are warm in their appreciation of the stimulus which the attendance and support at their games and meetings of numbers of voluntary workers not directly connected with the schools have afforded.

The beneficient results of healthy Games Associations are becoming more apparent as the Associations become stabilised and acquire reputations known not only locally but throughout the County.

Several areas have now flourishing Associations which are entirely self-supporting, and as they make no application to the Committee for assistance, their names do not appear in the list given below.

The Committee's regulations allow a grant of half the expenditure of an Association during the year, with a maximum grant of £50, so that somewhat substantial sums must be raised from voluntary sources by all grant-aided Associations. It is pleasing to note that there is a large increase in the amount raised by the Associations themselves. The whole of the work done both in raising funds and in organising games is undertaken voluntarily by teachers out of school hours in addition to their ordinary duties. There are frequent expressions of appreciation by the Managers of schools and by Local Committees of the excellent work which is being done, and the Committee will realise how much of the success of the Games Association is due to the interest and enthusiasm of the teachers.

2.—Increase in Associations.

The growth in organised games under the Committee's Scheme is shown below :—

Year.		No. of Associations Grant-aided.		No. of Schools in Associations.
1921–22	...	7	...	42
1926–27	...	27	...	209
1930–31	...	44	...	265
Application for Grants.				
1931–32	...	42	...	276

3.—Arrangements for 1931–32.

The amount provided in the Committee's Estimates for affording assistance to Organised Games' Associations was £1,000, and Grants were given to the following Associations :—

District No.	Name of Association.	No. of Schools or Depts.
1	Leven and Crake Valley	9
1	High Furness, Rural	7
1	Cartmel District Schools' Athletic	4
1	North Lonsdale Schools' Athletic	13
3	Garstang and District Schools' Games	12
4	Thornton Cleveleys Elementary Schools' Games	5
7	South Ribble Elementary Schools' Games Federation :— (*a*) South Ribble Rounders' League ... ... (*b*) West Lancashire Rural Football ... ... (*c*) Leyland School Boys' Athletic Games ... ... (*d*) Leyland School Girls' Games ... ... (*e*) Walton-le-Dale Football	29
8	Whalley and District	3
9	Paddock	11
10	No. 10 District	8
11	No. 11 District	5
12	No. 12 District	8
14	Adlington School Sports	3
16	Skelmersdale	4
16	Ormskirk and District	7
19	Upholland Elementary School Sports	3
19	Orrell Schools' Games	4
19	Ashton-in-Makerfield Schools Sports	4
19	Abram	1
19	Ashton-in-Makerfield Central School Sports	2
21	Westhoughton Schools' Athletic	7
22	Kearsley Athletic...	12
23	Ramsbottom School Sports	2
25	Prestwich and Whitefield	9
26	Littleborough and Smallbridge	11
26	Whitworth Schools' Games	5
26	Milnrow Schools' Games	5
28	Litherland Schools Organised Games	10
29	Whiston Central	1
30	Haydock Schools' Sports	4
30	Newton-in-Makerfield Schools' Sports	9
30	Penketh and Great Sankey	2
30	Warrington and District Teachers	4
31	Atherton Schools' Athletic	9

District No.	Name of Association.	No of. School or Dept.
31	Tyldesley	10
32	Newton-in-Makerfield Schools' Sports (Golborne Section) ...	3
32	Newton-in-Makerfield Schools' Sports (Glazebury Section) ...	3
32	Newton-in-Makerfield Schools' Sports (Lowton Section) ...	3
33	Urmston and Flixton District School Athletic	6
33	Irlam and Cadishead School Sports	6
34	Worsley and District	7
35	Denton and Haughton Schools' Cricket League	6
	Total	276

SWIMMING.

As noted in previous years good progress continues to be made in Instruction in Swimming, and reports from the schools show enthusiasm for this branch of Physical Training.

The Committee will remember that the issue of Swimming Certificates of Proficiency was authorised at the October meeting. The action of the Committee has been welcomed by all schools ; it is anticipated that it will prove an important additional incentive to proficiency during the coming swimming season.

A large number of interesting and well-organised galas receiving a gratifying amount of local support have been held. The standard of proficiency at these galas has noticeably improved, and the range of the competitions is rapidly increasing. Although facilities for girls are frequently more limited than those for boys it is interesting to note that many schools comment particularly on the success of the girls.

An increased number of schools have applied for Grants for 1931–32. Assistance by Borough Authorities has been readily given in cases where Baths are not available in the County Area, and warm appreciation of their help is expressed.

The following Table shows the schools and Districts to which grants are made :—

District No.	School or Area.	No. of Schools or Depts.	Baths to be Attended.
1	Dalton-in-Furness	5	Barrow
1	Kirkby Ireleth The Burlington ...	1	Do.
2	Nether Kellet Council	2	Lancaster
4	Fleetwood and Thornton	9	Fleetwood
5	Kirkham and District	7	Kirkham
6	Longridge	3	Preston
7	North Meols, Banks Prim. Methodist ...	1	Southport
7	Walton-le-Dale	4	Bathing Pool
9	Oswaldtwistle, Belthorn and Daisy Green	1	Blackburn
10	Blackburn Rural	3	Do.
11	Brierfield and District	5	Burnley

District No.	School or Area.	No. of Schools or Depts.	Baths to be Attended.
12	Barrowford and District	4	Nelson and Colne
13	Padiham and District	5	Burnley
14	Chorley Rural	13	Brinscall
16	Ormskirk	4	Southport
18	Shevington Broad o'th' Lane Council ...	1	Wigan
19	Orrell and Ashton-in-Makerfield ...	3	Wigan
21	Westhoughton	7	Bolton
22	Little Hulton and Kearsley	4	Farnworth
23	Walmersley-cum-Shuttleworth, Buckhurst	1	Bury
25	Whitefield and District	5	Radcliffe
		1	Salford (Broughton)
26	Littleborough, Milnrow, Whitworth and Wardle	14	Rochdale
		2	Bacup
28	Litherland...	11	Bootle
29	Halewood C.E.	1	Woolton
29	Whiston Central Council	1	St. Helens
30	Newton-in-Makerfield, &c.	4	St. Helens
		13	Warrington
31	Atherton, Tyldesley and Astley ...	11	Atherton
		12	Tyldesley
32	Lowton	4	Leigh
35	Denton, Audenshaw, Droylsden, Lees, Failsworth and Waterloo	5	Manchester
		2	Hyde
		2	Gorton
		2	Ashton-under-Lyne
		2	Oldham
		1	Hollingwood
		1	Whitworth
	Total	177	

SCHOOL CAMPS.

That increased interest is now evident in the open air life is shown in the numbers of school camps for which grant was paid during the year. There were 30 schools and 858 children taking part in these camps, which lasted from a week to a fortnight. For the coming year the number of schools which have made application is 50, the probable number of children being 2,029, with 127 teachers.

PROVISION OF MEALS AND MILK FOR ELEMENTARY SCHOOL CHILDREN.

In the Annual Report for 1929 full details were given of the scheme which was inaugurated at the end of the year 1928, for the provision of mid-day meals, fresh milk, and cod liver oil, etc., for school children. The method of administering the scheme has not changed, but it will be seen from the following tables that the number of children receiving meals or milk has considerably increased. During the year 1930 mid-day meals or fresh milk were supplied to children in 17 of the 34 Local Education Districts in the Administrative County Area ; and of the number of children on the roll of Elementary Schools in the County Area approximately 6·09 per cent. received either milk or mid-day meals.

During the year the provision of mid-day meals for children in the following townships was commenced :—Fleetwood, Great Harwood, Clayton-le-Moors, Church, Rishton, Oswaldtwistle, Golborne and Leigh Rural District (Lowton), whilst feeding ceased in the Townships of Fleetwood and Thornton. In Orford, a township in the Warrington Rural District, a feeding centre has been closed and fresh milk is now supplied to the children.

It will be observed that the provision of meals for children in Fleetwood commenced and ceased during the year. In both Fleetwood and Thornton the scheme was only in operation for a little over six months, when the Local Committee considered that there was no further need for the supply of free meals.

During the year the provision of fresh milk was commenced in the townships of Grange, Longridge, Lostock Hall, and Leyland.

The average cost per meal per child in 1930, was 4·05d. for food only, and 5·73d. for food and administration, compared with 4·13d. and 5·72d. respectively in 1929. It should be pointed out, however, that in the few cases where meals are supplied in a café or where the contractor supplies and also serves the meals, the cost is shown under the heading as the cost of food only, but actually the cost includes a certain amount of administration.

The average cost per pint of milk in 1930 was 2·53d. for milk only, and 2·69d. for milk and administration, compared with 2·55d. and 2·71d. respectively in 1929.

The following table shows the townships in which mid-day meals were provided, the number of meals provided, and the cost :—

Area No.	Township.	Amount spent.		No. of meals provided.	Average cost per meal per child.	
		Food.	Total.		Food.	Total.
		£ s. d.	£ s. d.		d.	d.
4	Fleetwood	358 1 8	508 6 9	24800	3·47	4·92
	Thornton	97 17 10	131 11 4	6009	3·91	5·25
9	Great Harwood ...	31 10 3	41 6 7	2602	2·91	3·81
	Clayton-le-Moors ...	14 13 0	15 17 8	1172	3·00	3·25
	Church	12 14 6	13 15 2	1018	3·00	3·24
	Rishton	5 2 6	5 6 6	205	6·00	6·23
	Oswaldtwistle ...	9 1 0	9 15 4	724	3·00	3·24
14	Adlington	218 19 2	393 19 4	13080	4·02	7·23
	Chorley R.D. (Coppull)	181 17 2	282 0 8	10910	4·00	6·20
18	Standish	402 10 0	534 17 7	32210	3·00	3·99
	Blackrod	98 18 4	194 6 10	5935	4·00	7·86
	Aspull	588 8 4	877 7 8	35335	4·00	5·96
	Wigan R.D. (Crooke)	145 11 0	259 17 7	11654	3·00	5·35
19	Ashton-in-Makerfield...	873 3 11	1329 11 9	62165	3·37	5·13
21	Westhoughton ...	565 11 9	939 2 2	29135	4·66	7·74
	Horwich	323 8 0	524 0 7	19406	4·00	6·48
22	Kearsley	519 10 10	683 7 0	24938	5·00	6·58
	Little Hulton	521 19 3	647 12 6	22841	5·48	6·81
	Little Lever	201 18 4	268 12 4	9806	4·94	6·57
	Barton-upon-Irwell R.D. (Clifton) ...	139 5 0	214 3 9	6684	5·00	7·69
25	Whitefield	22 13 9	37 5 6	1089	5·00	8·21
	Prestwich	191 15 11	254 7 0	9181	5·01	6·65
	Bury R.D. (Outwood)	302 14 2	380 6 2	14530	5·00	6·28

Area No.	Township.	Amount spent.		No. of meals provided.	Average cost per meal per child.	
		Food.	Total.		Food.	Total.
		£ s. d.	£ s. d.		d.	d.
30	Haydock	1409 4 0	1868 7 2	87520	3·86	5·12
	Newton-in-Makerfield	1134 14 6	1503 6 8	71147	3·83	5·07
	Warrington R.D. (Burtonwood and Orford)	558 4 11	716 16 5	34364	3·90	5·01
31	Tyldesley	205 0 1	259 14 11	10885	4·52	5·73
	Atherton	295 0 1	403 1 2	15790	4·48	6·13
	Leigh R.D. (Astley) ...	197 4 4	299 13 7	10501	4·51	6·85
32	Golborne	296 11 8	430 18 10	17795	4·00	5·81
	Leigh R.D. (Lowton)	96 2 4	162 9 10	5767	4·00	6·76
34	Worsley	764 17 5	1078 4 5	40233	4·56	6·43
		10784 5 0	15269 10 9	639531	4·05	5·73

The following table shows the townships in which fresh milk was provided, the quantity of milk provided, and the cost:—

Area No.	Township.	Amount spent.		No. of pints of milk provided.	Average cost per pint.	
		Milk.	Total.		Milk.	Total.
		£ s. d.	£ s. d.		d.	d.
1	Dalton...	571 13 5	604 11 3	56679	2·42	2·56
	Ulverston	198 6 2	209 8 8	19795	2·40	2·54
	Grange...	5 1 1	5 11 10	454	2·67	2·96
	Ulverston R.D. ...	214 5 7	227 9 8	21290	2·42	2·56
6	Longridge	11 10 4	11 10 4	772	3·58	3·58
7	Walton-le-Dale ...	0 12 0	0 12 0	36	4·00	4·00
14	Withnell	51 16 3	57 16 3	4485	2·77	3·09
	Chorley R.D.	92 3 3	100 8 3	6835½	3·24	3·53
15	Leyland	1 1 8	1 6 8	74	3·51	4·32
	Chorley R.D.	60 10 10	67 10 10	5329	2·73	3·04
18	Blackrod	31 2 6	32 12 6	2458	3·04	3·19
	Wigan R.D.	58 4 10	61 9 10	4966	2·81	2·97
19	Upholland	207 12 2	215 17 2	19287	2·58	2·69
	Orrell	435 4 9	452 8 8	40568½	2·57	2·68
	Billinge	104 14 0	108 19 0	11168½	2·25	2·34
	Abram...	143 12 8	149 12 8	14224	2·42	2·52
30	Warrington R.D. ...	249 1 10	262 2 1	21832	2·74	2·88
33	Irlam	167 12 8	197 12 8	16523½	2·43	2·87
		2604 6 0	2767 0 4	246777	2·53	2·69

The following table shows the Number of individual Children who have been provided with either Milk or Mid-day Meals :—

Township.	No. of individual children who received	
	Milk.	Mid-day Meals.
Dalton	426	...
Ulverston	202	...
Grange	3	...
Ulverston R.D.	81	...
Fleetwood	...	391
Thornton	...	95
Longridge	11	...
Walton-le-Dale	2	...
Great Harwood	...	162
Clayton-le-Moors	...	66
Church	...	59
Rishton	...	23
Oswaldtwistle	...	54
Withnell	18	...
Adlington	...	53
Chorley R.D.	64	99
Leyland	4	...
Standish	...	197
Blackrod...	10	35
Aspull	...	160
Wigan R.D.	25	58
Upholland	143	...
Orrell	361	...
Billinge	93	...
Ashton-in-Makerfield	...	498
Abram	105	...
Westhoughton	...	229
Horwich	...	154
Kearsley	...	128
Little Hulton	...	123
Little Lever	...	52
Barton-upon-Irwell R.D.	...	31
Whitefield	...	12
Prestwich	...	70
Bury R.D.	...	98
Haydock...	...	738
Newton-in-Makerfield	...	687
Warrington R.D.	168	276
Tyldesley	...	81
Atherton	...	82
Leigh R.D.	...	92
Golborne...	...	89
Irlam	84	...
Worsley	...	256
Totals	1800	5148

During the year Cod Liver Oil and Malt, &c., as shown below, were supplied to school children :—

		£	s.	d.
7138 lbs. Cod Liver Oil and Malt	... at a cost of	280	2	4
345 bottles Cod Liver Oil	,,	8	12	1
29 bottles Emulsion	,,	1	11	6
85 lbs. Vitamalt...	,,	6	0	5
39 tins Virol	,,	1	19	0
		£298	5	4

Milk Distribution to School Children.

The experiments of Corry Mann (1926), Orr (1928) and Leighton & Clark (1929) on the value of a supplementary milk ration to school children, suggested a remedy for the malnutrition prevalent amongst the school children of an industrial district.

The organisation of a daily milk supply to one of the schools proved so successful that the idea soon spread to most of the others in the district. According to the latest report, 488 rations of fresh milk are distributed every morning at play time.

The milk is delivered in sealed bottles, specially made to hold one third of a pint each, which are contained in wire trays, 30 per tray. The trays are taken to the class rooms, where the milk is served out to the individual children, at the price of one penny. Each child receives with his bottle of milk a clean straw. To drink the milk he needs only to press the straw through a " trap door" arrangement in the centre of the cardboard seal, so reducing the risk of spilling or contaminating the milk to a minimum. Finally the empties are collected and stacked ready for the milkman to collect the next day, when he brings the fresh supply.

The whole procedure takes only five minutes, and the children go out to play for the rest of the interval.

CO-OPERATION OF PARENTS.

During the year the Medical Officers interviewed 15,303 parents in schools and clinics and visited 754 homes, whilst the Nurses interviewed in school 1,176 parents and visited 15,527 homes ; 119,171 attendances were made by children of pre-school age at Child Welfare Centres, each one representing an interview of a parent with either Doctor or Nurse.

In addition, the Nurses paid 93,681 visits to the homes of young children, infants or expectant mothers, etc. The opportunities thus shown for interviews with parents are frequent, and there is, at the present time, scarcely any of the hostility which was not uncommon in the early days of School Medical Inspection.

CO-OPERATION OF TEACHERS.

Teachers still continue to take an eager interest in the work of medical inspection and place all facilities at the disposal of the Medical Officer and School Nurse. Their advice with regard to home conditions and status of pupils and parents is always welcomed.

CO-OPERATION OF SCHOOL ATTENDANCE OFFICERS.

The following table shows some of the figures relating to the School Attendance Officers' duties in 1930 :—

No. of interviews with Medical Officers	1,073
No. of interviews with School Nurses	1,699
No. of visits to homes, arising out of Medical Inspection ...	1,966
No. of cases specially presented to the Medical Officers and School Nurses	1,768

CO-OPERATION OF RATE-AIDED AND VOLUNTARY BODIES.

The Medical Officers are in touch with the rate-aided bodies such as Boards of Guardians and District Councils, the School Attendance Officers, School Nurses and Health Visitors very often being the media of communication.

The Attendance Officers continue to perform numerous duties not directly connected with school attendance. The supervision of the employment of children entails work at irregular hours and often on Saturdays and Sundays. Other work connected with the physical welfare of children and with the activities of the School Medical Department continues to increase. Cases where children are neglected by their parents are frequently dealt with in co-operation with the National Society for the Prevention of Cruelty to Children without resorting to prosecution. The Attendance Officers are also frequently called on to arrange for sending children to convalescent homes or to the seaside for recuperation after illness, and they are often closely concerned with the arrangements for the transfer of children to Special Schools. The Annual Reports from the districts invariably record gratifying instances of active philanthropic work.

The Local Area Clerks are fully acquainted administratively and otherwise with the voluntary agencies for the relief of necessitous school children.

BLIND, DEAF, DEFECTIVE, AND EPILEPTIC CHILDREN.

The methods and policy of the Committee for ascertaining and dealing with children who are defective within the meaning of the Elementary Education (Blind and Deaf Children) Act, 1899 and 1914, are unchanged and have previously been described.

Blind Children.

The number of children on the Special Register who were considered as blind children in the year 1930 was 68 boys and 60 girls. Of these, 11 boys and 20 girls were totally blind, and 57 boys and 40 girls had some residual vision.

Attending Certified Schools or Classes for the Blind were 34 boys and 39 girls. During the year 10 blind children were reported on, and in the following table the causes of blindness are reported as :—

Ophthalmia Neonatorum	2
Congenital	2
Congenital Cataracts	1
Myopia	1
Microphthalmos and Complete Leucoma	1
Optic Atrophy	2
Phthisis Bulbi and Central Leucoma	1
	10

The number of children of Elementary School age who were maintained in 1930 at the following Institutions for the Blind was 34 boys and 39 girls. The annual cost of maintenance was £4,256 or an average cost of £58 6s. 0d. a child.

	Boys.	Girls.	Total.
Burnley Blind School	1	1	2
Catholic Blind Asylum, Liverpool	1	5	6
Homes for the Blind, Fulwood	9	6	15
Liverpool School for the Blind	5	8	13
Oldham Blind School	4	4	8
Thomasson Memorial School, Bolton	4	4	8
Henshaw's Institution, Manchester	9	8	17
Sunshine Home, Southport	1	2	3
Chorley Wood Cottage, Watford	—	1	1
	34	39	73

Deaf Children.

On the Register for 1930 there were 85 boys and 67 girls, of whom 38 boys and 31 girls were totally deaf, and 47 boys and 36 girls had residual hearing. Of all these 152 children, there were in attendance at the Special Certified Schools or Classes for the Deaf 49 boys and 42 girls, as shown below. The annual cost of maintenance was £6,264 or an average cost of £68 16s. 8d. a child.

	Boys.	Girls.	Total.
Burnley Deaf School	2	3	5
Liverpool School for the Deaf	2	5	7
Oldham Deaf School	1	2	3
Royal Schools for the Deaf, Manchester	21	19	40
St. John's Institution, Boston Spa	4	2	6
Thomasson Memorial School, Bolton	2	4	6
Royal Cross Schools for the Deaf, Preston	17	7	24
	49	42	91

During the year 10 deaf children of Elementary School age were reported on, and the following causes of their deafness are shown :—

Congenital	6
Meningitis	1
Measles	2
Middle Ear Disease (Chronic)	1
	10

The importance of sending these cases for special training at the earliest age, at four if possible, cannot be sufficiently impressed on parents and teachers ; time lost at the beginning can never be recovered.

EPILEPTIC CHILDREN.

On the Register there are noted 133 boys and 74 girls as suffering from Epilepsy, of whom 56 are severe and 151 not severe. Eleven of these children are maintained at Institutions for Epileptics, at a cost of £750, or an average cost of £68 3s. 8d. a child.

MENTALLY DEFECTIVE CHILDREN.

There were, in 1930, 379 children noted in the Elementary Education Area as being feeble-minded, viz., 261 boys and 163 girls. In addition, 48 children were notified to the Local Control Authority, in this case the Lancashire Asylums Board, as being ineducable.

EDUCATION OF THE BLIND.

The education of the Blind was fully described in last year's Report. It is still necessary to point out that Blind Children educated at Special Schools are not necessarily Blind Persons when they reach school leaving age. The position of these children is unfortunate, for, though they may need specialised vocational training after this age, they are not entitled to receive it under any scheme dealing with Blind Persons.

At the present time the Lancashire Education Committee pays the training fees in respect of 80 students. The following table shows the Institutions the trainees attend, and also the occupations for which they are being trained.

LIVERPOOL SCHOOL FOR THE BLIND, HARDMAN STREET.

	Males.	Females.	Total.
Basket Making	1	–	
Boot Repairing	3	–	
Chair Seating and Mat Making	–	1	
Machine Knitting	–	2	
Chair Seating and Machine Knitting...	–	1	
Machine Knitting and Chair Caning	–	1	
Total	4	5	9

CATHOLIC BLIND ASYLUM, LIVERPOOL.

	Males.	Females.	Total.
Chair Caning and Rush Seating	–	1	
Mat Making	1	–	
Basket Making	1	–	
Total	2	1	3

WORKSHOPS FOR THE BLIND, CORNWALLIS STREET, LIVERPOOL.

	Males.	Females.	Total.
Mat Making	1	–	
Chair Seating and Mat Making	1	–	
Total	2	–	2

BURNLEY WORKSHOPS FOR THE BLIND.

	Males.	Females.	Total.
Machine Knitting	–	3	
Boot Repairing	2	–	
Total	2	3	5

BOLTON WORKSHOPS FOR THE BLIND.

	Males.	Females.	Total.
Brush Making	6	–	
Cane Seating	–	2	
Basketry	–	1	
Hand Knitting and Rug Making	–	1	
Mat Making	5	–	
Rug Making, Basketry and Knitting...	–	1	
Total	11	5	16

HENSHAW'S INSTITUTION FOR THE BLIND, MANCHESTER.

	Males.	Females.	Total.
Mat Making	1	–	
Piano Tuning and Repairing	2	–	
Machine Knitting	–	7	
Skip Making and Basketry	1	–	
Brush Making	2	–	
Light Basketry	–	2	
Boot Repairing	1	–	
Furniture Making	5	–	
French Polishing	–	1	
Music Teaching...	–	1	
Light Skip Making	2	–	
Mattress Making	–	1	
Machine Knitting and Light Basketry	–	1	
Piano Tuning and Furniture Assembling	1	–	
Hand Loom Weaving	–	1	
Total	15	14	29

HOMES FOR THE BLIND, FULWOOD.

	Males.	Females.	Total.
Brush Making	2	1	
Boot Repairing	5	–	
Cane and Rush Seating	–	1	
Machine Knitting	–	4	
Light Basketry	–	1	
Total	7	7	14

ROYAL NORMAL COLLEGE, LONDON.

	Males.	Females.	Total.
Teaching of Music	–	1	
Piano Tuning and Teaching of Music...	1	–	
Total	1	1	2

Totals, Males	44
Totals, Females	36
Total ...	80

TRAINING OF DEAF PERSONS.

The following is a list of the Institutions at which deaf persons are receiving secondary education :—

Royal Residential School for the Deaf, Old Trafford.
Swanley Horticultural College.

SECONDARY, CONTINUATION, AND TECHNICAL SCHOOLS.

The medical inspection of the pupils in attendance at Secondary, Continuation, and Technical Schools was commenced on 1st September, 1920, and is confined to those schools provided by or wholly financed by the Committee.

At the present time there are 54 schools, consisting of 42 Secondary Schools, 8 Technical Schools, and 4 Continuation Schools in which medical inspection is conducted.

The girls attending these schools are medically examined by women Medical Officers. The boys are examined by the male Medical Officers, each Assistant County Medical Officer being responsible for the inspection of the boys of the schools within his own area, and also in the adjoining areas in those cases where the Medical Officer in charge is a woman.

The medical staff has again received the whole-hearted co-operation of most of the teachers, and also of the parents of those pupils who required treatment.

METHOD OF INSPECTION.

The method of inspection has been described in detail in previous Annual Reports, and need not be repeated here.

In the following table the pupils attending these schools are shown in two groups, *i.e.*, those attending Secondary Schools and those attending Technical and Continuation Schools. The table shows the number of pupils examined during 1930 in the various age groups :—

Age.	Secondary Schools.		Technical and Continuation Schools.	
	No. of Pupils examined.		No. of Pupils examined.	
	Boys.	Girls.	Boys.	Girls.
8	27	8	...	...
9	48	15	...	...
10	263	54	...	...
11	694	205	...	...
12	907	275	9	...
13	960	279	155	1
14	1,105	275	200	14
15	887	214	116	19
16	572	125	70	4
17	241	45	19	...
18	98	21	...	...
19	23	...	1	...
TOTALS	5,825	1,516	570	38

Number of Pupils re-examined—

Secondary Schools	645
Technical and Continuation Schools	27

Number of Parents interviewed—

Secondary Schools	515
Technical and Continuation Schools	6

The following table shows the work done in Secondary, &c., Schools by the Medical Officers at visits other than routine visits :—

No. of re-visits paid to schools	75
No. of children examined at re-visits	783
No. of children recommended for specific medical treatment	202
No. of parents interviewed at school	78

Findings of Medical Inspection.

The following tables show the results of the routine medical inspection. All "Entrants" and all pupils of twelve years of age and over are examined each year.

Secondary Schools.

				Boys.							*Girls.*						
				Ages 8-11.	Age 12.	Age 13.	Age 14.	Age 15.	Age 16.	Ages 17-19	Ages 8-11.	Age 12.	Age 13.	Age 14.	Age 15.	Age 16.	Ages 17-19
		No Examined		1032	907	960	1105	887	572	362	282	275	279	275	214	125	66
		Pupils having Defects		47·2	43·6	42·5	45·8	47·9	47·2	46·1	44·0	36·4	35·8	39·3	37·4	37·6	30·3
Mental Condition.		Dull and Backward	T	...	...	...	...	...	...	...	...	...	...	...	...	...	...
			O	...	0·1	...	...	...	...	...	...	...	...	...	...	...	...
		Feeble-minded	T	...	...	...	...	...	...	...	...	...	...	...	...	...	...
			O	...	...	...	...	...	...	...	...	...	...	...	...	...	...
		Imbeciles	T	...	...	...	...	...	...	...	...	...	...	...	...	...	...
			O	...	...	...	...	...	...	...	...	...	...	...	...	...	...
		Idiots	T	...	...	...	...	...	...	...	...	...	...	...	...	...	...
			O	...	...	...	...	...	...	...	...	...	...	...	...	...	...
		Malnutrition	T	0·3	0·3	...	...	0·1	...	...	...	...	0·4	...	...	...	...
			O	0·3	0·6	...	0·2	0·2	...	...	0·7	1·5	1·8	1·5	0·5	...	1·5
Unclean-liness.		Head	T	0·1	...	...	...	...	...	...	0·4	...	0·4	...	...	...	...
			O	0·1	...	...	...	...	...	...	2·8	1·8	0·7	1·1	0·9	...	...
		Body	T	...	...	...	...	...	...	...	0·4	...	...	...	...	...	...
			O	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Skin.	Ring-worm.	Head	T	...	...	0·1	...	...	...	...	...	...	...	...	...	...	...
			O	...	...	...	...	...	...	...	2·1	1·5	...	...	...	...	...
		Body	T	...	...	...	...	...	...	...	...	...	...	...	...	...	...
			O	...	...	...	...	...	...	...	...	...	...	...	...	...	...
		Scabies	T	...	...	...	...	...	...	...	...	...	...	...	...	...	...
			O	...	...	...	...	...	...	...	...	...	...	...	...	...	...
		Impetigo	T	0·5	0·4	...	0·1	...	...	...	...	...	...	...	...	...	...
			O	0·3	0·2	...	0·1	...	...	...	...	...	...	...	...	...	...
		Other Diseases	T	0·5	0·2	0·9	1·0	1·6	1·9	1·9	0·4	0·4	0·4	0·7	0·9	...	...
		(Non-Tubercular)	O	0·7	1·0	0·5	1·5	2·5	2·6	1·9	0·7	1·8	0·7	1·8	3·3	1·6	3·0
Eye Diseases.		Defective Vision	SP	5·6	4·2	4·9	5·7	7·6	6·3	7·7	5·3	5·5	7·9	7·3	6·5	8·8	4·5
			O	8·5	8·3	11·6	12·4	14·0	13·8	21·5	3·2	4·0	9·0	6·5	7·0	11·2	12·1
		Squint	T	0·6	0·6	0·1	0·1	0·7	0·2	0·6	...	...	...	...	...	...	...
			O	1·5	1·2	2·2	0·7	0·9	0·7	0·8	0·4	0·7	...	...	0·5	0·8	...
		Conjunctivitis	T	...	0·1	0·1	...	...	0·2	...	...	...	...	...	...	...	...
			O	0·3	0·2	0·3	0·1	0·2	0·5	...	...	...	...	...	...	...	...
		Blepharitis	T	0·4	0·2	0·2	0·3	0·5	0·3	0·3	...	...	0·4	...	...	...	...
			O	0·9	0·4	0·5	0·5	0·1	0·2	0·6	0·4	...	0·7	0·4	0·5	...	...
		Keratitis	T	...	...	...	...	...	...	...	...	...	...	...	...	...	...
			O	...	...	0·1	...	...	...	...	...	...	...	...	...	...	...
		Corneal Opacities	T	...	...	...	...	...	...	...	...	...	...	...	...	...	...
			O	...	...	...	...	0·1	0·2	0·3	...	...	...	...	0·5	...	...
		Corneal Ulcer	T	...	...	...	...	...	...	...	...	...	...	...	...	...	...
			O	...	...	...	...	...	...	...	...	...	...	...	...	...	...

				Boys.							*Girls.*						
				Ages 8-11.	Age 12.	Age 13.	Age 14.	Age 15.	Age 16.	Ages 17-19	Ages 8-11.	Age 12.	Age 13.	Age 14.	Age 15.	Age 16.	Ages 17-19
Ear Diseases.		Defective Hearing	T	0·1	0·2	0·1	0·1	...	0·3	0·6	...	0·4	...	...	...	...	...
			O	0·8	0·4	0·6	0·6	1·0	0·7	1·1	...	...	...	0·7	...	0·8	...
		Otitis Media	T	0·1	...	0·4	0·4	0·2	...	0·3	...	0·7	...	0·4	...	...	...
			O	...	1·3	0·5	0·6	0·7	...	...	...	...	...	...	...	...	...
		Other Ear Diseases	T	0·1	0·6	0·2	0·1	0·2	0·2	0·3	...	...	...	0·4	...	...	...
			O	0·1	...	0·1	0·2	0·2	...	...	...	...	...	...	...	...	...
Nose and Throat.		Enlarged Tonsils	T	0·8	0·8	0·7	1·2	0·6	0·2	...	1·1	1·5	0·4	0·4	0·9	0·8	1·5
			O	8·4	5·0	9·8	7·1	7·6	4·4	1·7	5·0	4·4	3·9	3·3	1·9	7·2	...
		Adenoids	T	...	0·1	0·2	0·2	...	0·2	...	...	...	...	...	...	...	...
			O	0·7	0·4	0·5	0·5	1·0	...	0·3	...	...	...	0·4	...	0·8	...
		Enlarged Tonsils and Adenoids	T	0·6	0·8	0·3	0·2	0·1	...	0·6	...	0·4	0·7	0·4	...	...	...
			O	2·5	1·8	2·0	1·0	1·1	1·0	0·8	...	...	...	...	...	...	...
		Enlarged Cervical Glands	T	0·2	...	...	...	...	...	...	...	...	0·4	...	...	...	...
		(Non-Tubercular)	O	5·9	6·6	3·0	4·2	1·5	1·9	...	4·6	3·3	1·8	1·1	...	4·0	...
		Defective Speech	T	...	0·1	...	...	...	...	...	...	...	...	...	...	...	...
			O	0·3	0·9	0·8	0·5	0·6	0·7	0·3	...	...	...	0·4	...	...	...
Teeth.		Four or more Carious	T	8·7	6·2	7·9	8·9	8·5	10·1	8·8	11·0	5·8	7·2	8·7	13·1	8·0	10·6
			O	1·6	1·8	0·7	1·3	0·3	1·6	1·4	2·1	1·5	0·7	1·8	0·5	...	...
		Sepsis	T	...	0·1	0·1	0·2	0·2	0·2	...	0·4	...	...	0·4	...	...	...
			O	...	...	...	...	0·1	...	...	...	...	...	0·4	...	...	...
Heart and Circulation.		Organic	T	...	0·1	...	0·1	...	...	0·3	...	0·4	...	...	0·5	...	...
			O	0·3	0·1	0·3	0·7	0·9	0·5	0·3	0·4	0·4	1·1	0·7	0·5	...	...
		Functional	T	...	...	...	...	...	...	0·3	...	...	...	...	...	...	...
			O	2·2	1·9	1·5	2·4	2·0	2·3	0·8	5·7	6·2	5·4	4·0	2·8	2·4	4·5
		Anæmia	T	...	...	...	...	...	...	...	...	0·4	0·4	0·7	...	0·8	1·5
			O	0·1	0·1	...	...	0·1	...	...	...	1·1	0·7	...	0·5	1·6	...
Lungs.		Bronchitis	T	...	0·1	0·1	...	...	...	...	...	...	...	...	...	...	...
			O	0·4	0·9	0·4	0·9	0·9	0·9	0·3	0·4	...	0·4	...	...	...	...
		Other Non-Tubercular Diseases	T	...	...	...	...	...	...	...	...	...	...	...	...	...	...
			O	0·2	0·1	0·3	0·4	0·4	0·2	...	...	...	...	...	...	0·8	...
Tuberculosis.	Pul-monary.	Definite	T	...	...	...	...	...	...	...	...	...	...	...	...	...	...
			O	...	...	...	...	...	...	...	...	...	...	...	...	...	...
		Suspected	T	...	...	...	...	...	...	...	...	...	...	...	...	...	...
			O	0·1	...	...	...	...	...	...	...	...	...	...	...	...	...
	Non-Pulmonary.	Glands	T	...	0·1	...	...	...	...	...	...	...	...	...	...	...	...
			O	...	...	...	...	0·2	...	...	...	...	...	...	...	...	...
		Spine	T	...	...	...	...	...	...	...	...	...	...	...	...	...	...
			O	...	...	...	...	...	...	...	...	...	...	...	...	...	...
		Hip	T	...	...	...	...	...	...	...	...	...	...	...	...	...	...
			O	...	...	...	...	...	...	...	...	...	...	...	...	...	...
		Other Bones and	T	...	...	...	...	...	...	...	...	...	...	...	...	...	...
		Joints	O	0·2	...	...	...	...	...	...	...	...	...	...	...	...	...
		Skin	T	...	...	0·1	...	...	...	...	...	...	...	...	0·5	...	...
			O	...	...	0·1	...	...	...	...	...	...	...	...	...	...	...
Nervous System.		Epilepsy	T	...	...	...	...	...	...	...	...	...	...	...	...	...	...
			O	...	...	...	...	...	...	0·3	...	...	...	...	...	...	...
		Chorea	T	...	0·1	...	...	...	...	...	...	...	...	...	...	...	...
			O	0·1	0·1	...	...	...	...	...	...	...	...	...	...	...	...
		Infantile Paralysis	T	...	...	...	...	...	...	...	...	...	...	...	...	...	...
			O	...	0·1	0·1	0·1	0·1	0·2	...	...	...	...	...	...	...	...
		Rickets	T	...	...	...	...	...	...	...	...	...	...	...	...	...	...
			O	0·5	0·2	...	...	0·1	0·2	0·3	...	...	...	...	...	...	...
Deform-ities.		Spinal Curvature	T	...	0·2	0·2	...	0·2	0·3	...	...	...	...	...	...	...	...
			O	0·4	0·6	...	0·5	0·2	0·7	0·3	...	...	...	...	0·5	...	...
		Other Forms	T	2·5	0·3	0·3	...	0·8	0·7	0·3	4·6	2·9	1·8	1·1	0·9	...	...
			O	2·2	2·5	1·6	1·7	2·4	2·1	1·7	1·8	0·7	0·7	2·9	0·9	0·8	...
		Other Diseases or Defects	T	1·1	1·1	0·8	0·3	1·0	0·9	0·8	1·1	...	1·1	1·1	0·5	3·2	...
			O	1·8	1·5	1·7	2·8	2·6	1·7	1·1	0·4	0·4	2·9	2·5	0·9	3·2	3·0

The following table gives a summary of the visual acuity, as determined by the Snellen Test Types, of all the pupils examined :—

SECONDARY SCHOOLS.

Boys.

Age last Birthday.	Number Examined.	6		9		12		18		24		36		60		0	
		R.	L.	R.	L.	R.	L.	R.	L.	R.	L.	R.	L.	R.	L.	R.	L.
8 9 10 11	1039	82·9	81·0	7·8	7·5	2·0	2·7	3·0	3·4	1·0	2·4	1·3	1·1	1·1	1·3	1·1	0·8
12	907	82·6	81·8	6·7	6·9	2·6	2·8	1·9	2·3	1·7	1·7	2·3	2·0	1·0	1·3	1·2	1·2
13	960	79·6	80·0	6·6	6·5	2·9	2·4	2·9	3·5	3·0	2·9	2·4	2·1	1·7	2·1	0·9	0·5
14	1105	79·6	79·8	7·1	7·5	2·9	2·1	3·3	3·1	2·4	2·4	2·4	1·9	1·2	2·0	1·2	1·2
15	887	76·6	76·7	7·4	6·9	2·8	3·0	4·3	4·3	2·5	3·3	3·2	2·8	1·6	1·6	1·7	1·5
16	572	76·2	74·0	8·4	11·7	4·2	3·1	3·1	3·5	2·1	1·7	3·1	2·6	0·5	1·6	2·3	1·7
17 18 19	373	66·2	69·2	15·3	12·1	4·3	5·6	4·3	3·5	3·2	2·4	2·7	1·9	2·1	2·7	1·9	2·7

Girls.

Age last Birthday.	Number Examined.	6		9		12		18		24		36		60		0	
		R.	L.	R.	L.	R.	L.	R.	L.	R.	L.	R.	L.	R.	L.	R.	L.
8 9 10 11	278	87·4	84·5	6·8	7·6	2·5	1·8	0·4	1·4	1·1	2·5	1·4	1·4	0·4	0·7	....	...
12	269	85·5	81·0	7·4	8·2	2·2	5·2	2·2	2·2	0·7	1·1	0·4	0·4	1·1	1·5	0·4	0·4
13	277	80·0	72·2	8·3	11·2	5·4	8·7	4·3	2·5	1·1	2·5	1·1	2·2	...	0·4	...	0·4
14	272	77·9	74·3	7·7	11·8	4·4	4·0	5·9	3·3	1·1	3·7	2·2	1·5	0·4	0·7	0·4	0·7
15	208	73·6	75·5	11·1	9·6	5·8	3·8	5·3	4·3	2·4	2·8	1·4	1·9	0·5	1·9	...	1·0
16	125	67·2	64·0	16·0	17·6	4·8	10·4	4·8	1·6	0·8	0·8	3·2	2·4	0·8	1·6	2·4	1·6
17 18 19	63	76·2	71·4	7·9	15·9	4·8	7·9	4·8	3·2	3·2	1·6	...	...	...	...	3·2	...

TECHNICAL AND CONTINUATION SCHOOLS.

The following table shows the results of the routine medical inspection of Technical and Continuation Schools :—

			Boys.							Girls.						
			Ages 8-11.	Age 12.	Age 13.	Age 14.	Age 15.	Age 16.	Ages 17-19	Ages 8-11.	Age 12.	Age 13.	Age 14.	Age 15.	Age 16.	Ages 17-19
	No. Examined		...	9	155	200	116	70	20	...	...	1	14	19	4	...
	Pupils having Defects		...	33·3	40·6	51·0	44·0	55·7	35·0	...	...	100·0	...	31·6	25·0	...
Mental Condition.	Dull and Backward	T	...	...	...	...	...	...	...	...	...	...	...	...	...	...
		O	...	...	...	...	...	1·4	...	...	...	...	...	...	...	...
	Feeble-minded	T	...	...	...	...	...	...	...	...	...	...	...	...	...	...
		O	...	...	...	...	...	...	...	...	...	...	...	...	...	...
	Imbeciles	T	...	...	...	...	...	...	...	...	...	...	...	...	...	...
		O	...	...	...	...	...	...	...	...	...	...	...	...	...	...
	Idiots	T	...	...	...	...	...	...	...	...	...	...	...	...	...	...
		O	...	...	...	...	...	...	...	...	...	...	...	...	...	...
	Malnutrition	T	...	...	...	...	...	...	...	...	...	...	...	...	...	...
		O	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Uncleanliness.	Head	T	...	...	...	...	...	...	...	...	...	...	...	...	...	...
		O	...	...	...	...	...	...	...	...	...	...	...	...	...	...
	Body	T	...	...	...	...	...	...	...	...	...	...	...	...	...	...
		O	...	...	...	...	...	...	...	...	...	...	...	...	...	...

				Boys.							Girls.						
				Ages 8-11.	Age 12.	Age 13.	Age 14.	Age 15.	Age 16.	Ages 17-19	Ages 8-11.	Age 12.	Age 13.	Age 14.	Age 15.	Age 16.	Ages 17-19
Skin.	Ring-worm.	Head	T	...	...	...	...	...	...	...	...	...	...	...	...	...	...
			O	...	...	...	...	...	...	...	...	...	...	...	...	...	...
		Body	T	...	...	...	...	...	...	...	...	...	...	...	...	...	...
			O	...	...	...	...	...	...	...	...	...	...	...	...	...	...
		Scabies	T	...	...	...	...	...	...	...	...	...	...	...	...	...	...
			O	...	...	...	...	...	...	...	...	...	...	...	...	...	...
		Impetigo	T	...	...	1·3	...	...	...	...	...	...	...	...	...	...	...
			O	...	...	...	...	...	...	...	...	...	...	...	...	...	...
		Other Diseases	T	...	...	0·6	0·5	...	...	...	...	...	...	...	...	...	...
		(Non-Tubercular)	O	...	...	1·3	1·5	0·8	...	...	...	...	...	...	...	...	...
Eye Diseases.		Defective Vision	SP	...	...	6·5	3·5	3·4	8·6	...	...	...	...	...	...	...	...
			O	...	1·1	9·7	14·5	9·5	12·9	5·0	...	...	...	...	...	...	...
		Squint	T	...	...	...	...	...	...	...	...	...	...	...	...	...	...
			O	...	...	...	1·0	...	...	...	...	...	...	...	...	...	...
		Conjunctivitis	T	...	1·1	0·6	1·0	...	...	...	...	...	...	...	...	...	...
			O	...	...	...	...	2·6	2·9	5·0	...	...	...	...	...	...	...
		Blepharitis	T	...	...	0·6	...	...	...	...	...	...	...	...	...	...	...
			O	...	...	0·6	...	1·7	...	...	...	...	...	...	...	...	...
		Keratitis	T	...	...	...	...	...	...	...	...	...	...	...	...	...	...
			O	...	...	...	...	...	...	...	...	...	...	...	...	...	...
		Corneal Opacities	T	...	...	...	...	...	...	...	...	...	...	...	...	...	...
			O	...	...	...	...	...	...	...	...	...	...	...	...	...	...
		Corneal Ulcer	T	...	...	...	...	...	...	...	...	...	...	...	...	...	...
			O	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Ear Diseases.		Defective Hearing	T	...	...	0·6	...	...	...	...	...	...	...	...	...	...	...
			O	...	...	...	...	...	1·4	...	...	...	...	...	...	...	...
		Otitis Media	T	...	...	...	0·5	...	1·4	...	...	...	...	...	...	...	...
			O	...	...	0·6	0·5	...	...	...	...	...	...	...	...	...	...
		Other Ear Diseases	T	...	...	0·6	...	...	...	...	...	...	...	...	...	...	...
			O	...	...	...	1·5	...	...	...	...	...	...	...	...	...	...
Nose and Throat.		Enlarged Tonsils	T	...	...	...	...	1·7	1·4	5·0	...	...	...	...	...	...	...
			O	...	...	7·7	7·5	11·2	4·3	...	...	...	...	...	...	...	...
		Adenoids	T	...	...	...	...	...	...	...	...	...	...	...	...	...	...
			O	...	...	...	...	0·8	...	...	...	...	...	...	...	...	...
		Enlarged Tonsils and Adenoids	T	...	...	...	0·5	...	...	...	...	...	...	...	...	...	...
			O	...	...	...	0·5	...	...	...	...	...	...	...	...	...	...
		Enlarged Cervical Glands	T	...	...	...	...	...	5·7	...	...	...	...	...	...	...	...
		(Non-Tubercular)	O	...	1·1	5·8	4·0	5·2	...	...	...	...	100.0	...	...	...	...
		Defective Speech	T	...	...	...	...	...	...	...	...	...	...	...	...	...	...
			O	...	...	...	0·5	0·8	1·4	...	...	...	...	...	...	...	...
Teeth.		Four or more Carious	T	...	1·1	3·2	9·0	6·9	5·7	...	...	...	...	...	...	...	...
			O	...	...	0·6	1·5	1·7	...	...	...	...	...	...	...	...	...
		Sepsis	T	...	...	...	...	...	...	5·0	...	...	...	...	...	...	...
			O	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Heart and Circulation.		Organic	T	...	...	...	0·5	...	...	...	...	...	...	...	...	...	...
			O	...	...	1·9	1·5	1·7	...	...	...	...	...	...	...	...	...
		Functional	T	...	...	...	...	...	...	...	...	...	...	...	...	...	...
			O	...	...	5·2	4·0	1·7	8·6	10·0	...	...	...	...	...	...	...
		Anæmia	T	...	...	...	...	...	...	...	...	...	...	...	...	...	...
			O	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Lungs.		Bronchitis	T	...	...	...	...	...	...	...	...	...	...	...	...	...	...
			O	...	...	...	1·0	4·3	7·1	...	...	...	...	...	...	...	...
		Other Non-Tubercular Diseases	T	...	...	...	...	...	...	...	...	...	...	...	...	...	...
			O	...	...	...	0·5	...	...	...	...	...	...	...	...	...	...
Tuberculosis.	Pul-monary.	Definite	T	...	...	...	...	...	...	...	...	...	...	...	...	...	...
			O	...	...	...	...	...	...	...	...	...	...	...	...	...	...
		Suspected	T	...	...	...	...	...	...	...	...	...	...	...	...	...	...
			O	...	...	...	...	...	...	...	...	...	...	...	...	...	...
	Non-Pulmonary.	Glands	T	...	...	...	...	...	...	...	...	...	...	...	...	...	...
			O	...	...	...	...	...	...	...	...	...	...	...	...	...	...
		Spine	T	...	...	...	...	...	...	...	...	...	...	...	...	...	...
			O	...	...	...	...	...	...	...	...	...	...	...	...	...	...
		Hip	T	...	...	...	...	...	...	...	...	...	...	...	...	...	...
			O	...	...	...	...	...	...	...	...	...	...	...	...	...	...
		Other Bones and	T	...	...	...	...	...	...	...	...	...	...	...	...	...	...
		Joints	O	...	...	...	...	...	...	...	...	...	...	...	...	...	...
		Skin	T	...	...	...	...	...	...	...	...	...	...	...	...	...	...
			O	...	...	...	...	...	...	...	...	...	...	...	...	...	...

			Boys.							*Girls.*						
			Ages 8-11	Age 12.	Age 13.	Age 14.	Age 15.	Age 16.	Ages 17-19	Ages 8-11.	Age 12.	Age 13.	Age 14.	Age 15.	Age 16.	Ages 17-19
Nervous System.	Epilepsy	T	...	...	...	...	...	...	...	...	...	...	...	...	...	...
		O	...	...	...	...	...	...	...	...	...	...	...	...	...	...
	Chorea	T	...	...	...	...	...	...	...	...	...	...	...	...	...	...
		O	...	...	...	...	...	...	...	...	...	...	...	...	...	...
	Infantile Paralysis	T	...	...	...	...	...	...	...	...	...	...	...	...	...	...
		O	...	...	...	...	...	...	...	...	...	...	...	...	...	...
	Rickets	T	...	...	...	...	...	...	...	...	...	...	...	...	...	...
		O	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Deformities.	Spinal Curvature	T	...	...	...	...	...	...	...	...	...	...	...	...	...	...
		O	...	...	...	...	...	1·4	...	...	...	...	...	...	...	...
	Other Forms	T	...	...	0·6	0·5	...	...	...	...	...	...	...	...	...	...
		O	...	...	1·3	2·5	0·8	1·4	5·0	...	...	...	...	26·3	25·0	...
	Other Diseases or Defects	T	...	...	...	...	6·9	2·9	5·0	...	...	...	...	...	...	...
		O	...	...	0·6	1·0	1·7	...	...	...	...	...	...	5·3	...	...

The following table gives a summary of the visual acuity as determined by the Snellen Test Types :—

TECHNICAL AND CONTINUATION SCHOOLS.

Boys.

Age last Birthday.	Number Examined.	6		9		12		18		24		36		60		0	
		R.	L.	R.	L.	R.	L.	R.	L.	R.	L.	R.	L.	R.	L.	R.	L.
8 9 10 11	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
12	9	88·8	88·8	...	...	...	...	...	...	...	...	11·1	11·1	...	...	...	...
13	155	77·4	78·7	10·3	9·0	3·2	3·9	2·6	3·2	1·9	0·6	3·2	2·6	1·3	1·3	...	0·6
14	200	78·0	78·0	8·0	8·5	3·5	2·5	2·0	3·0	1·5	2·5	2·5	1·0	2·5	2·5	2·0	2·0
15	119	79·8	84·0	5·9	5·9	4·2	2·5	2·5	3·4	1·7	0·8	4·2	0·8	1·7	2·5	...	...
16	70	77·1	77·1	7·1	7·1	5·7	4·3	5·7	1·4	1·4	5·7	2·9	1·4	...	1·4	...	1·4
17 18 19	19	94·7	94·7	...	...	5·2	...	...	5·2	...	...	...	...	...	...	...	...

Girls.

Age last Birthday.	Number Examined.	6		9		12		18		24		36		60		0	
		R.	L.	R.	L.	R.	L.	R.	L.	R.	L.	R.	L.	R.	L.	R.	L.
8 9 10 11	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
12	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
13	1	100·0	100·0	...	...	...	...	...	...	...	...	...	...	...	...	...	...
14	14	78·4	78·4	14·3	7·4	...	...	...	...	...	7·4	7·4	7·4	...	...	...	...
15	19	68·4	73·7	26·3	5·3	5·3	...	...	5·3	...	...	...	10·5	...	...	5·3	...
16	4	75·0	75·0	25·0	25·0	...	...	...	...	...	...	...	...	...	...	...	...
17 18 19	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...

TREATMENT.

In the vast majority of cases treatment is obtained privately, but the facilities which are available for the children attending the Elementary Schools are actually available for Secondary School pupils whose parents are not in a position to obtain the necessary treatment elsewhere. For necessitous non-residents in the County a note from the Medical Inspector or Head Master to the local Medical Officer of Health procures a ready response. The help of Head Teachers has been greatly appreciated in this direction.

The following tables show in summary form the amount, kind, and results of the treatment obtained during the year.

The first set of tables gives this information in regard to those pupils who were examined at the previous medical inspection ("new cases"):—

SECONDARY SCHOOLS.

TREATMENT OF DEFECTS.

NEW CASES.

Boys.

DISEASE OR DEFECT.	NUMBER OF PUPILS.								
	Referred for Treatment.	Treated.			Result.			Untreated.	No Information.
		Under Authority's Scheme.	Otherwise.	Total.	Cured.	Improved.	Unchanged		
Minor Ailments (Skin)—									
Ringworm—Scalp ...	...	...	...	...	...	...	...	...	...
Ringworm—Body ...	1	...	1	1	1	...	...	...	...
Scabies	1	...	1	1	1	...	...	...	...
Impetigo	2	...	2	2	2	...	...	...	...
Other Skin Disease ...	43	1	23	24	16	6	2	5	14
Ear Disease	44	6	23	29	12	13	4	7	8
Eye Disease (external and other)	18	...	15	15	15	...	...	...	3
Dental Disease	317	16	197	213	127	65	21	42	62
Other Diseases	83	9	52	61	31	28	2	11	11

Girls.

DISEASE OR DEFECT.	NUMBER OF PUPILS.								
	Referred for Treatment.	Treated.			Result.			Untreated.	No Information.
		Under Authority's Scheme.	Otherwise.	Total.	Cured.	Improved.	Unchanged		
Minor Ailments (Skin)—									
Ringworm—Scalp ...	...	...	...	...	...	...	...	...	...
Ringworm—Body ...	...	...	...	...	...	...	...	...	...
Scabies	1	...	1	1	1	...	...	...	...
Impetigo	...	...	...	...	...	...	...	...	...
Other Skin Disease ...	...	...	...	...	...	...	...	...	...
Ear Disease	7	...	6	6	4	1	1	...	1
Eye Disease (external and other)	1	...	1	1	...	...	1	...	...
Dental Disease	120	...	70	70	11	53	6	13	37
Other Diseases	21	1	14	15	4	11	...	4	2

TREATMENT OF VISUAL DEFECT.

	Number of Pupils.													
	Referred for Refraction.	Submitted to Refraction.				Result of Refraction.							Not Refracted.	No Information.
		Under Authority's Scheme—Clinic, or Hospital.	By Private Practitioner or Hospital.	Otherwise.	Total.	Under Authority's Scheme—Clinic or Hospital		By Private Practitioner, Hospital or otherwise.		Treatment other than by Glasses.		For whom no treatment was considered necessary.		
						Glasses Prescribed	Glasses Obtained.	Glasses Prescribed	Glasses Obtained	Recommended.	Received.			
Boys	299	98	92	55	245	68	63	142	141	3	3	32	18	36
Girls	85	9	11	37	57	7	7	48	48	2	2	...	11	17

TREATMENT OF DEFECTS OF NOSE AND THROAT.

	Number of Pupils.						
	Referred for Treatment.	Received Operative Treatment.			Received other forms of Treatment.	Untreated.	No Information.
		Under Authority's Scheme—Clinic or Hospital.	By Private Practitioner or Hospital.	Total.			
Boys	63	9	24	33	7	14	9
Girls	16	...	10	10	2	4	...

TECHNICAL AND CONTINUATION SCHOOLS.

TREATMENT OF DEFECTS.

NEW CASES.

Boys.

Disease or Defect.	Number of Pupils.								
	Referred for Treatment.	Treated.			Result.			Untreated.	No Information.
		Under Authority's Scheme.	Otherwise.	Total.	Cured.	Improved.	Unchanged		
Minor Ailments (Skin)—									
Ringworm—Scalp ...	...	...	...	...	...	...	...	...	...
Ringworm—Body ...	...	...	...	...	...	...	...	...	...
Scabies	...	...	...	...	...	...	...	...	...
Impetigo	2	...	2	2	2	...	...	...	...
Other Skin Disease ...	...	...	...	...	...	...	...	...	...
Ear Disease	3	1	...	1	1	...	...	2	...
Eye Disease (external and other)	2	...	1	1	1	...	...	...	1
Dental Disease	43	...	10	10	7	3	...	13	20
Other Diseases	9	1	3	4	...	3	1	1	4

Girls.

Disease or Defect.	Number of Pupils.								
	Referred for Treatment.	Treated.			Result.			Untreated.	No Information.
		Under Authority's Scheme.	Otherwise.	Total.	Cured.	Improved.	Unchanged		
Minor Ailments (Skin)—									
Ringworm—Scalp ...	...	...	...	...	...	...	...	...	...
Ringworm—Body ...	...	...	...	...	...	...	...	...	...
Scabies	...	...	...	...	...	...	...	...	...
Impetigo	...	...	...	...	...	...	...	...	...
Other Skin Diseases ...	...	...	...	...	...	...	...	...	...
Ear Disease	1	...	1	1	...	1	...	...	...
Eye Disease (external and other)	...	...	...	...	...	...	...	...	...
Dental Disease	...	...	...	...	...	...	...	...	...
Other Diseases	2	...	2	2	...	2	...	...	...

TREATMENT OF VISUAL DEFECT.

	Number of Pupils.													
	Referred for Refraction.	Submitted to Refraction.				Result of Refraction.							Not Refracted.	No information.
		Under Authority's Scheme—Clinic or Hospital.	By Private Practitioner, or Hospital.	Otherwise.	Total.	Under Authority's Scheme—Clinic or Hospital		By Private Practitioner, Hospital, or otherwise.		Treatment other than by Glasses.		For whom no treatment was considered necessary.		
						Glasses Prescribed	Glasses Obtained	Glasses Prescribed	Glasses Obtained.	Recommended.	Received.			
Boys	35	18	2	2	22	14	14	4	4	...	...	4	5	8
Girls	2	...	1	...	1	...	...	1	1	...	...	...	...	1

TREATMENT OF DEFECTS OF NOSE AND THROAT.

	Number of Pupils.						
	Referred for Treatment.	Received Operative Treatment.			Received other forms of Treatment.	Untreated.	No information.
		Under Authority's Scheme—Clinic or Hospital.	By Private Practitioner or Hospital.	Total.			
Boys	5	3	1	4	...	...	1
Girls	...	...	...	...	...	...	...

The following set of tables gives similar information in regard to those pupils who were recommended to obtain treatment at some inspection prior to the last ("old cases") :—

SECONDARY SCHOOLS.

Treatment of Defects.

Old Cases.

Boys.

Disease or Defect.	Number of Pupils.								
	Referred for Treatment.	Treated.			Result.			Untreated.	No information.
		Under Authority's Scheme.	Otherwise.	Total.	Cured.	Improved.	Unchanged		
Minor Ailments (Skin)—									
Ringworm—Scalp ...	...	...	...	...	...	...	...	...	...
Ringworm—Body ...	...	...	...	...	...	...	...	...	...
Scabies	...	...	...	...	...	...	...	...	...
Impetigo	...	...	...	...	...	...	...	...	...
Other Skin Disease ...	6	...	4	4	1	2	1	...	2
Ear Disease	12	...	9	9	1	7	1	...	3
Eye Disease (external and other)	3	...	2	2	1	...	1	...	1
Dental Disease	64	1	25	26	11	12	3	15	23
Other Diseases	22	4	4	8	5	3	...	2	12

Girls.

Disease or Defect.	Number of Pupils.								
	Referred for Treatment.	Treated.			Result.			Untreated.	No Information.
		Under Authority's Scheme.	Otherwise.	Total.	Cured.	Improved.	Unchanged		
Minor Ailments (Skin)—									
Ringworm—Scalp ...	...	...	...	...	...	...	...	...	...
Ringworm—Body ...	...	...	...	...	...	...	...	...	...
Scabies	...	...	...	...	...	...	...	...	...
Impetigo	...	...	...	...	...	...	...	...	...
Other Skin Disease ...	...	...	...	...	...	...	...	...	...
Ear Disease	...	...	...	...	...	...	...	...	...
Eye Disease (external and other)	...	...	...	...	...	...	...	...	...
Dental Disease	14	...	2	2	1	1	...	5	7
Other Diseases	2	...	1	1	...	1	...	...	1

Treatment of Visual Defects.

	Number of Pupils.													
	Referred for Refraction.	Submitted to Refraction.				Result of Refraction.							Not Refracted.	No Information.
		Under Authority's Scheme—Clinic or Hospital.	By Private Practitioner or Hospital.	Otherwise.	Total.	Under Authority's Scheme—Clinic or Hospital		By Private Practitioner, Hospital, or otherwise.		Treatment other than by Glasses.		For whom no treatment was considered necessary.		
						Glasses Prescribed	Glasses Obtained.	Glasses Prescribed	Glasses Obtained	Recommended.	Received.			
Boys	52	8	10	16	34	8	8	20	19	1	1	5	7	11
Girls	5	...	2	2	4	...	...	4	4	...	...	...	...	1

Treatment of Defects of Nose and Throat.

	Number of Pupils.						
	Referred for Treatment.	Received Operative Treatment.			Received other forms of Treatment.	Untreated.	No Information.
		Under Authority's Scheme—Clinio or Hospital.	By Private Practitioner or Hospital.	Total.			
Boys	25	...	4	4	...	8	13
Girls	3	...	1	1	1	...	1

TECHNICAL AND CONTINUATION SCHOOLS.

Treatment of Defects.

Old Cases.

Boys.

Disease or Defect.	Number of Pupils.								
	Referred for Treatment.	Treated.			Result.			Untreated.	No Information.
		Under Authority's Scheme.	Otherwise.	Total.	Cured.	Improved.	Unchanged		
Minor Ailments (Skin)—									
Ringworm—Scalp ...	...	...	...	...	...	...	...	...	...
Ringworm—Body ...	...	...	...	...	...	...	...	...	...
Scabies	...	...	...	...	...	...	...	...	...
Impetigo	...	...	...	...	...	...	...	...	...
Other Skin Disease ...	...	...	...	...	...	...	...	...	...
Ear Disease	1	...	...	...	...	...	...	...	1
Eye Disease (external and other)	...	...	...	...	...	...	...	...	...
Dental Disease	11	...	...	...	...	...	...	...	11
Other Diseases	1	...	...	...	...	...	...	...	1

Girls.

Disease or Defect.	Number of Pupils.								
	Referred for Treatment.	Treated.			Result.			Untreated.	No Information.
		Under Authority's Scheme.	Otherwise.	Total.	Cured.	Improved.	Unchanged		
Minor Ailments (Skin)—									
Ringworm—Scalp ...	...	...	...	...	...	...	...	...	...
Ringworm—Body ...	...	...	...	...	...	...	...	...	...
Scabies	...	...	...	...	...	...	...	...	...
Impetigo	...	...	...	...	...	...	...	...	...
Other Skin Disease ...	...	...	...	...	...	...	...	...	...
Ear Disease	...	...	...	...	...	...	...	...	...
Eye Disease (external and other)	...	...	...	...	...	...	...	...	...
Dental Disease	...	...	...	...	...	...	...	...	...
Other Diseases	1	...	1	1	...	1	...	...	...

Treatment of Visual Defect.

	Number of Pupils.													
	Referred for Refraction.	Submitted to Refraction.				Result of Refraction.							Not Refracted.	No information.
		Under Authority's Scheme—Clinic or Hospital.	By Private Practitioner or Hospital.	Otherwise.	Total.	Under Authority's Scheme—Clinic or Hospital		By Private Practitioner, Hospital, or otherwise.		Treatment other than by Glasses.		For whom no treatment was considered necessary.		
						Glasses Prescribed	Glasses Obtained.	Glasses Prescribed	Glasses Obtained	Recommended.	Received.			
Boys	4	...	...	...	...	...	...	...	...	...	...	...	1	3
Girls	...	...	...	...	...	...	...	...	...	...	...	...	...	...

Treatment of Defects of Nose and Throat.

	Number of Pupils.						
	Referred for Treatment.	Received Operative Treatment.			Received other forms of Treatment.	Untreated.	No Information.
		Under Authority's Scheme—Clinic or Hospital.	By Private Practitioner or Hospital.	Total.			
Boys	2	...	...	...	...	...	2
Girls	...	...	...	...	...	...	...

MISCELLANEOUS.

Special attention is directed to the examination of Bursars in Secondary Schools. During the past year 146 Bursars and 278 candidates for Bursaries were medically examined.

A number of lectures, in many cases arranged in conjunction with Miss Tipper, the organising lecturer employed by the Public Health Department, have been given to parents, mothers, members of Women's Institutes, Mothers' Unions, &c., during the year.

Lectures, illustrated by suitable films and lantern slides, have been given by members of the School Medical and Dental Staff, and Miss Tipper, to large numbers of children on such subjects as Personal Hygiene, Cleanliness, Care of the Teeth, &c., in many of the districts.

Various courses of lectures to Midwives have been given by members of the Medical Staff.

COALFIELDS DISTRESS FUNDS.—CAMPS FOR SCHOOL CHILDREN.

The Director of Education presented the following Report to the Education Committee :—

As reported at the May meeting of this Committee, Camps for the children of distressed miners were organised by the Authorities of the Coalfields Distress Fund during September at Birkdale and Conway. Forty-six children and two teachers from the Aspull and Abram districts spent one week at the Birkdale Camp.

Two hundred and forty children and 17 teachers visited the Camp at Conway for the period 30th August to 13th September, 1930, and 233 children and 17 teachers attended the same Camp during the period 13th to 27th September, 1930. The places in the Camp were allocated to the various districts in the County by the Coalfields Distress Funds Committee, and the selection of the children was left to the Local Area Committee of the districts concerned.

The Conway Camp is held in the Morfa Centre, Conway, of the Holiday Fellowship Society, and the children are accommodated in wooden huts and the supervising teachers in separate cubicles. There is a Common Room equipped with piano and suitable pictures, Canteen, Dining Hut for boys and girls separately, and a Cookhouse which divides the boys' section of the Camp from the girls'. A separate mess is provided for the teachers.

The site of the Camp is a large sandy stretch of land at the Conway estuary, the Camp itself being protected from drifting sand by palisading. Football and other games can be played on adjoining land, and bathing takes place on a good shingle beach. The Camp is situated about ten minutes' walk from Conway Castle, and daily visits are organised to the Castle, neighbouring hills and places of interest in the district.

The Camp routine was similar to that of last year, starting at 7 o'clock with reveille, breakfast at 8 o'clock, lunch at 1 p.m., tea at 5 p.m., lights out at 8 p.m. The domestic arrangements were managed by a regular staff, and good substantial meals were provided. Entertainments were organised during the evening. The Camp Authorities provided everything with the exception of clothing and sports wear.

A number of reports has been received from teachers as to the very enjoyable time spent at the Camp, most of them containing comments on the valuable and helpful work of the Warden of the Camp.

The School Medical Department again arranged for the medical inspection of all the children by their School Medical Officers, and arranged for one of their nurses to be in attendance during the whole of the period of the Camp. Her services were of great value.

The weather was rather unsatisfactory, but the reports submitted all refer to the healthier look of the children at the end of their stay in Camp.

SPECIAL INQUIRIES.

Dr. G. G. Wray has written the following paper on the classification of the causes of blindness :—

A SUGGESTED CLASSIFICATION OF BLINDNESS.

One of the greatest difficulties in the administration of the Blind Persons Act is that there is no classification of the causes of blindness which is in general use throughout the country. This, in conjunction with the fact that investigations of cases of blindness are of necessity carried out by a large number of investigators, many of whom are not possessed of any extensive knowledge of diseases of the eye, has given rise to a confused and chaotic multiplicity of diagnoses which not only has no scientific basis, but also provides no method of differentiation between cases of blindness that are preventable, and those that are not.

The difference that exists also between the standard of blindness adopted by the Board of Education in the case of persons who are under the age of sixteen years (*i.e.*, "Those children whose eyesight is so defective as to be unable to read the ordinary school books ") and that laid down by the Blind Persons Act (*i.e.*, Eyesight so defective as to be unable to perform any work for which sight is essential) has again raised many difficulties particularly when a child who has been educated in a blind school reaches the age of 16 years, and is then found not to be a blind person under the Blind Persons Act. The industrial future of such a person has been seriously jeopardised because an employer is naturally loth to employ anyone on sighted work who has been educated in a blind school. It is, therefore, necessary that provision should be made on the investigator's record of each individual case for an opinion as to whether improvement or deterioration of vision is likely to result, in other words a prognosis of each case is necessary, and is just as important in pensionable cases as in that of children of school age.

The question as to whether treatment is suggested, or likely to produce improvement of vision is another important matter for which provision should be made on each individual record.

A notation on the form of any factors which predisposed to the actual blindness would be of value, not only in arriving at a correct diagnosis of the case, but also by providing some data as to which cases are preventable.

It is suggested, therefore, that in future the record of each individual case should be altered, so that instead of a mere statement as to the cause of blindness, the information obtained should be of fuller description. It should be possible from such information to determine the predisposing cause of the blindness, the actual cause of blindness, the possibility of improvement under treatment, and the prognosis of the case. In order to achieve this object the salient points with reference to the causation of the blindness should be so grouped together that it should be possible for each individual record to be filed in its correct classification almost at a glance. Such a grouping is suggested as follows :—

1.—Amount of sight (*a*) With glasses R. L.
(*b*) Without glasses R. L.

2.—Totally blind or partially blind

3.—Condition of each eye, *e.g.*, media and fundus

4.—Cause of blindness (*a*) Predisposing cause
(*b*) Actual cause
(*c*) Any treatment suggested
(*d*) Prognosis

5.—(*a*) Do you consider the person to be blind within the meaning of the Blind Persons Act, 1920, *i.e.*, so blind as to be unable to perform any work for which eyesight is essential

or (*b*) Do you consider the child to be blind within the meaning of the Education Act, *i.e.*, the vision so defective that even with suitable glasses the child is unable to read the ordinary school books used by children

6.—Do you consider the child will be blind within the meaning of the Blind Persons Act, 1920, when he or she attains the age of 16 years

7.—At what age did blindness occur

The estimation of the amount of sight should be carried out by Snellen or similar type, and noted in the usual manner, *e.g.*, $\frac{6}{60}$ Where the 60 metre type can only be read at a less distance than 6 metres, this distance should be given, *e.g.*, $\frac{1}{60}$ or $\frac{3}{60}$, etc.

Where Snellen type cannot be read, the amount of sight should be noted in the following way :—

(*a*) Counts fingers (*b*) Finger movements
(*c*) Perception of light only (*d*) No perception of light.

Jaeger type should also be used in addition for each eye, so that a typical record should read :—

(1) Amount of sight (*a*) with glasses R. $\frac{4}{60}$ J. 10. L. Finger movements.
(*b*) without glasses R. $\frac{1}{60}$ J. 20. L. Finger movements.

It should be noted that it is often very difficult to obtain a reliable test of the patient's vision at the patients' home, particularly as, whether in consequence of the diminution of the blind person's financial resources, or through other causes, the home conditions for examination and testing of the person's eyes are rarely adaptable for the purpose.

The condition of each eye should be fully and accurately described and particularly in older people a note should be made concerning the globe tension.

It is also suggested that terms "from birth," "congenital," "hereditary cataracts," etc., should not be loosely used as causes of blindness.

In the classification of the causes of blindness which is given below, and which it is suggested should be adopted for the purpose of the registration of the blind throughout the country there are five large classes each of which is divided into several subdivisions.

In classes one and two most of the children who are of pre-school or school age, and who are classed as blind under the Education Acts definition will be found, whereas in classes three, four and five will be found those who develop blindness later in life, and who become pensioners.

It will be noted that a code definition is given to each class which, with the subdivision letter enables a quick filing of all cases, *e.g.*, C.O.N. (*g*) is a case of Microphthalmos, or I.C.C (*d*) is a case of Interstitial Keratitis.

The subdivisions in each class are lettered in order of frequency of cases as determined by the analysis of all the cases of blindness which have been investigated in the Administrative County of Lancashire. This also should prove of advantage for the purpose of record, as the greater numbers of cases in each class will come amongst the earlier letters, *e.g.*, *a* to *d*.

No. I. Group.

Congenital and Hereditary Defects. Code : C.O.N.	(*a*) Congenital Cataract. (*b*) Feeble-minded and Amaurotic Blindness (*c*) Congenital Optic Neuritis (*d*) Retinitis Pigmentosa (*e*) Albinism (*f*) Hereditary Optic Neuritis (*g*) Microphthalmos (*h*) Congenital Choroiditis (*i*) Buphthalmos (*j*) Hydrocephalus (*k*) Absence of eyes, lenses, irides, Coloboma of Choroid, Extreme Conical Corneae, Symblepharon or complete Ptosis.

No. II. Group.

Inflammations of Conjunctivae and Corneae. Code : I.C.C.	(*a*) Ophthalmia Neonatorum (*b*) Leucoma, Staphyloma, Pannus and/or Panophthalmitis the result of measles, scarlet fever, small-pox, chicken-pox, puerperal fever, erysipelas, sepsis or typhoid. (*c*) Leucoma or Anterior Staphyloma, the result of Corneal Ulcers or Keratitis. (*d*) Interstitial Keratitis (*e*) Trachoma

No. III. Group.

Diseases of the Iris Ciliary Body Choroid Vitreous and Globe. Code : D.I.C.	(*a*) Senile Cataract
	(*b*) Glaucoma
	(*c*) Iritis, Irido-Cyclitis or Irido-Choroiditis
	(*d*) High Myopia with Choroidal Degeneration or detached Retinac
	(*e*) Choroiditis Acquired
	(*f*) Diabetic Cataract
	(*g*) Tumours of the Globe and/or Orbit.
	(*h*) Phthisis Bulbi
	(*i*) Vitreous Disease

No. IV. Group.

Diseases of the Retina and Optic Nerve. Code : D.O.R.	(*a*) Optic Atrophy
	(*b*) Optic Neuritis
	(*c*) Neuro-Retinitis—the result of Cerebral Haemorrhage, Tabes Dorsalis, General Paralysis of the Insane, Disseminated Sclerosis, Meningitis, Encephalitis, Epilepsy or Insanity
	(*d*) Neuro-Retinitis—the result of brain tumour or brain abscess
	(*e*) Detached Retina
	(*f*) Haemorrhagic Retinitis
	(*g*) Diabetic Retinitis
	(*h*) Retinitis
	(*i*) Albuminuric Retinitis
	(*j*) Arterio-Sclerotic Retinitis

No. V. Group.

Traumatic Injuries. Industrial Diseases. Code : T.I.D.	(*a*) Sympathetic Ophthalmia
	(*b*) Perforating injury of both globes
	(*c*) Burns or scalds involving the conjunctivae and corneae of both eyes
	(*d*) Cranial or brain injuries
	(*e*) Injuries scarring both Corneae
	(*f*) Traumatic Cataracts
	(*g*) Anophthalmos (double enucleation, cause not known)
	(*h*) Industrial Poisoning, *e.g.*, lead, copper, pyroxylin, etc.

An analysis of the 2,543 cases of blindness which have been investigated in the Administrative County of Lancaster, arranged on the basis of the above classification, shows the number of cases under each heading, and also the percentage of the total number of cases :—

Group I.

Congenital and Hereditary Defects. Code : C.O.N.	(*a*) Congenital Cataract	109	4·29
	(*b*) Feeble-minded and Amaurotic Blindness	57	2·24
	(*c*) Congenital Optic Neuritis ...	31	1·22
	(*d*) Retinitis Pigmentosa	18	·71
	(*e*) Albinism	15	·59
	(*f*) Hereditary Optic Neuritis ...	12	·47
	(*g*) Microphthalmos	10	·39
	(*h*) Congenital Choroiditis	8	·31
	(*i*) Buphthalmos	5	·2
	(*j*) Hydrocephalus	2	·08
	(*k*) Absence of eyes, lenses, irides, Coloboma of Choroid, Extreme Conical Corneae, Symblepharon or complete Ptosis	4	·16
		271	10·66

Group II.

Inflammations of Conjunctivae and Corneae. Code : I.C.C.	(*a*) Ophthalmia Neonatorum ...	174	6·84
	(*b*) Leucoma, Staphyloma, Pannus and–or Panophthalmitis the result of measles, scarlet fever, small-pox, chicken-pox, puerperal fever, erysipelas, sepsis or typhoid	76	2·99
	(*c*) Leucoma or Anterior Staphyloma, the result of Corneal Ulcers or Keratitis	63	2·47
	(*d*) Interstitial Keratitis	32	1·26
	(*e*) Trachoma	1	·04
		346	13·6

Group III.

Diseases of the Iris Ciliary Body Choroid Vitreous and Globe. Code : D.I.C.	(*a*) Senile Cataract	591	23·24
	(*b*) Glaucoma	267	10·49
	(*c*) Iritis, Irido-Cyclitis or Irido Choroiditis	89	3·5
	(*d*) High Myopia with Choroidal Degeneration or detached Retinae	67	2·63
	(*e*) Choroiditis Acquired	47	1·85
	(*f*) Diabetic Cataract	14	·55
	(*g*) Tumours of the Globe and–or Orbit	8	·31
	(*h*) Phthisis Bulbi	4	·15
	(*i*) Vitreous Disease	2	·08
		1,089	42·8

Group IV.

Diseases of the Retina and Optic Nerve. Code : D.O.R.	(*a*) Optic Atrophy	159	6·25
	(*b*) Optic Neuritis	114	4·48
	(*c*) Neuro-Retinitis—the result of Cerebral Haemorrhage, Tabes Dorsalis, General Paralysis of the Insane, Disseminated Sclerosis, Meningitis, Encephalitis, Epilepsy or Insanity	83	3·33
	(*d*) Neuro-Retinitis—the result of brain tumour or brain abscess	18	·7
	(*e*) Detached Retina	17	·67
	(*f*) Haemorrhagic Retinitis	13	·51
	(*g*) Diabetic Retinitis	11	·43
	(*h*) Retinitis	10	·39
	(*i*) Albuminuric Retinitis	7	·27
	(*j*) Arterio-Sclerotic Retinitis	3	·11
		435	17·14

Group V.

Traumatic Injuries. Industrial Diseases. Code : T.I.D.	(*a*) Sympathetic Ophthalmia	126	4·95
	(*b*)Perforating injury of both globes	121	4·75
	(*c*) Burns or scalds involving the Conjunctivae and Corneae of both eyes	15	·59
	(*d*) Cranial or brain injuries...	11	·43
	(*e*) Injuries scarring both Corneae...	6	·23
	(*f*) Traumatic Cataracts	5	·19
	(*g*) Anophthalmos (double enucleation, cause not known)	4	·15
	(*h*) Industrial Poisoning, *e.g.*, lead, copper, pyroxylin, etc.		
		288	11·29

Unclassified.	(*a*) Congenital	7	·27
	(*b*) Hereditary	2	·08
	(*c*) From birth	8	·31
	(*d*) Miscellaneous	86	3·38
	(*e*) Nystagmus	11	·43
		114	4·47

The paucity of information given on some of the records of these cases has produced in this analysis figures which are not strictly accurate either in themselves or by comparison, but should prove in the main a fairly reliable index of the percentage of blindness to be expected in each class. There are certain figures which are too high, in particular the sub-division, feeble-minded and amaurotic blindness (C.O.N. (*b*)). Many of the cases notified under this class should have appeared under Class 4 (D.O.R. (*a*)).

The number of unclassified cases is also much too large, and if the suggested classification is adopted, these figures should entirely disappear.

It is interesting to note that slightly more than one third of the total cases of blindness in Lancashire are caused by Senile Cataract and Glaucoma, diseases which most commonly appear after the age of 40. Undoubtedly blindness in many of these cases is preventable if they receive adequate treatment in the early stages and the figures for these sub-divisions should in the future show a steady diminution. The same remarks apply with equal force to the cases of Congenital Cataract.

The number of cases in class 5 has been largely increased by injuries sustained in the War, and in the future should show a steady decrease.

Roughly from these figures it can be deducted that some 25 per cent. of blindness appears in the early years of life, that about 60 per cent. appears in middle and old age, and that about 12 per cent. is due to industrial and other injuries.

An investigation of the methods of Infant Feeding in an industrial area of S.E. Lancashire and their effects upon the health of the School Child.

By Dr. J. G. Wilson.

This investigation is an attempt to show :—

(1) The proportion of infants in the area who are breast fed at the present time.

(2) Whether the proportion is less than it used to be.

(3) The causes of early weaning and to what extent they are preventable.

(4) To what extent the health of the school child is influenced by the method of feeding (artificial or breast) in infancy.

The figures for parts (1) and (3) of the investigation are obtained from the Case Record Cards of the infants who have attended two Child Welfare Centres in South East Lancashire during the years 1929 and 1930. Notes were taken only from those cards which had a reasonably complete record of the infant's progress from birth to the time of weaning. The total number of cards from which notes were taken was 407 ; 210 males, and 197 females. Results are shewn in Graph A and Table 1.

The figures for parts (2), (3) and (4) were taken from notes of statements of mothers of children brought to the Minor Ailment Clinic or marked down for treatment at visits to schools within the period September, 1930, to February, 1931, inclusive. The mother of each child was asked what illnesses the child had had, at what age in infancy it was weaned, and the reason for doing so (if the weaning was early). When she had made her statement her memory was assisted by leading questions. The results of these enquiries are shown in Graph B and Table II. Next, a full examination was made of each child and a record made of its general condition together with any local defect found. On going through the records afterwards it was found that the data so obtained could be grouped under the following heads, which are set out in Table III. (*a*) General Condition good ; (*b*) General condition fair ; (*c*) Condition delicate ; (*d*) Diseased tonsils and adenoids ; (*e*) Rachitic Deformities ; (*f*) Organic heart disease. The group "delicate" follows the definition of the Board of Education and includes pre or latent tuberculosis, malnutrition, debility, anaemia, etc. The group "fair" includes all border-line cases whose general condition was far from "good" yet they were not bad enough to label " delicate." They were in a state of sub- rather than mal-nutrition. Altogether 315 school children between the ages of 5 and 14 (inclusive) were examined and their histories recorded in respect of infant feeding, age of weaning, cause of early weaning, and past illnesses. There were 167 boys and 148 girls and slightly more than half of the total (165) were between the ages of 8 and 14 years. The figures obtained from the histories of these children with regard to ages of weaning, and causes thereof, may be compared with those obtained from the Welfare Centre Cards (see Table II. and Graph B).

Part I.—The proportion of the Infants in the Area breast fed at the present time.

The following figures were obtained from the Welfare Centre Cards. Of the 210 male infants :—

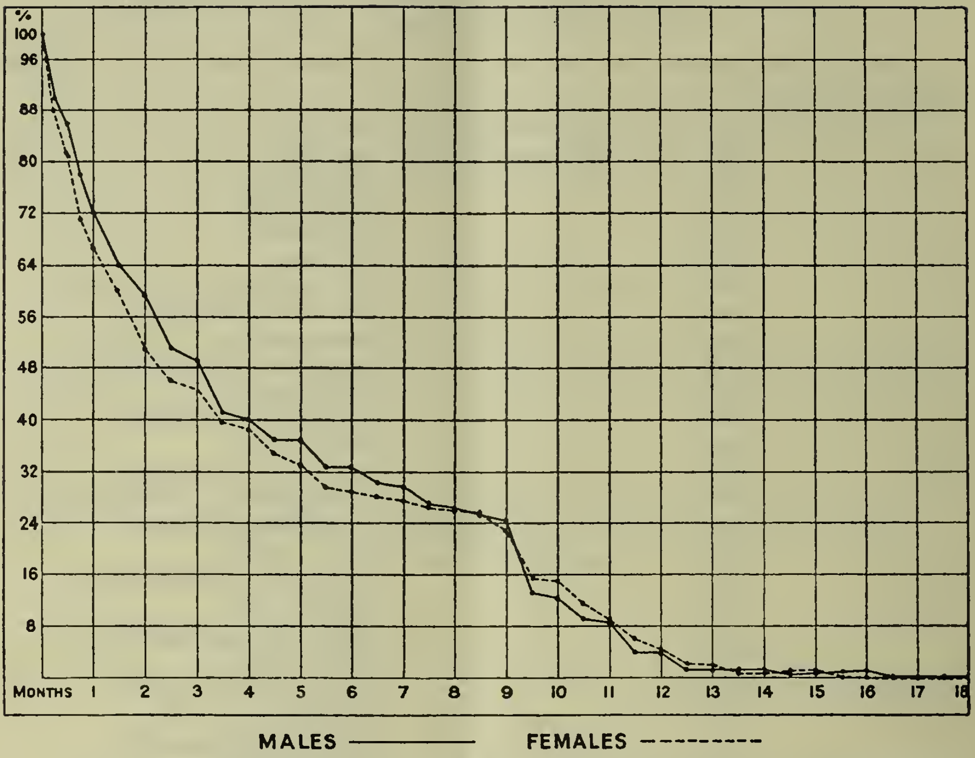
10	%	were artificially fed from birth		
90	,,	were breast fed for		one week
86·2	,,	,,	,,	two weeks
78	,,	,,	,,	three weeks
72·9	,,	,,	,,	four weeks
64·7	,,	,,	,,	six weeks
59·5	,,	,,	,,	two months
51·4	,,	,,	,,	two and a half months
49·5	,,	,,	,,	three months
41·4	,,	,,	,,	three and a half months
40	,,	,,	,,	four months
36·6	,,	,,	,,	four and a half months
36·6	,,	,,	,,	five months
32·8	,,	,,	,,	five and a half months
32·8	,,	,,	,,	six months
30·	,,	,,	,,	six and a half months
29·5	,,	,,	,,	seven months
26·6	,,	,,	,,	seven and a half months
26·2	,,	,,	,,	eight months
24·76	,,	,,	,,	eight and a half months
24·2	,,	,,	,,	nine months
13·3	,,	,,	,,	nine and a half months
12·8	,,	,,	,,	ten months
9	,,	,,	,,	ten and a half months
8·57	,,	,,	,,	eleven months
4·2	,,	,,	,,	twelve months
·95	,,	,,	,,	thirteen and a half months
·95	,,	,,	,,	fourteen months
·4	,,	,,	,,	sixteen months

Of the 197 female infants :—

12·2	%	were artificially fed from birth		
87·8	,,	were beast fed for		one week
81·7	,,	,,	,,	two weeks
71·1	,,	,,	,,	three weeks
66·5	,,	,,	,,	four weeks
60·4	,,	,,	,,	six weeks
53·2	,,	,,	,,	two months
47·2	,,	,,	,,	two and a half months
44·6	,,	,,	,,	three months
39·6	,,	,,	,,	three and a half months
38·6	,,	,,	,,	four months
35·	,,	,,	,,	four and a half months
32·99	,,	,,	,,	five months
29·44	,,	,,	,,	five and a half months
28·93	,,	,,	,,	six months
28·43	,,	,,	,,	six and a half months
27·41	,,	,,	,,	seven months
26·39	,,	,,	,,	seven and a half months
25·88	,,	,,	,,	eight months
24·87	,,	,,	,,	eight and a half months
22·84	,,	,,	,,	nine months
15·73	,,	,,	,,	nine and a half months
14·72	,,	,,	,,	ten months
11·16	,,	,,	,,	ten and a half months
9·13	,,	,,	,,	eleven months
6·09	,,	,,	,,	eleven and a half months
4·56	,,	,,	,,	twelve months
2·03	,,	,,	,,	thirteen months
·5	,,	,,	,,	fifteen months

These figures are shown graphically in Graph A.

GRAPH A



It will be observed that only 24 per cent males and 22 per cent. females were fed to nine months, and that 50 per cent. or more of both sexes had been weaned by the end of the third month. Yet all authorities on infant feeding are agreed that the majority of mothers are capable of breast feeding.—Sir F. Truby King[1] puts the figure as high as 95 per cent. It may be objected that the mothers who come to the Welfare Centres only come because they are in difficulties over breast feeding, and want to get advice on artificial feeding, and, still more, to purchase the dried milks supplied at the Centres ; whilst those mothers who stay away may be assumed to be feeding their babies on the breast successfully. In a word, it may be contended that an investigation into methods of infant feeding not confined to the section of the population attending Welfare Centres, but extended to the entire population of the district would give results showing a higher percentage of infants breast fed at all ages. Confirmation of this argument is suggested by graph B., the figures of which were obtained from histories taken at random in the district, irrespective of whether the infants had attended Welfare Centres or not. This does show a higher percentage of breast fed infants in both sexes ; which also might be accounted for by the fact that they were reared at a time when the industrial depression was not so severe as it is now, and the standard of living was correspondingly higher, favouring better nourishment amongst the mothers.

Further light is shed on the problem by comparing both sets of Lancashire figures with statistics drawn in the U.S.A. by Manning[2] of 1,000 cases in private practice, and by Mitchell[3] of 1,819 cases in the hospital class—see below :—

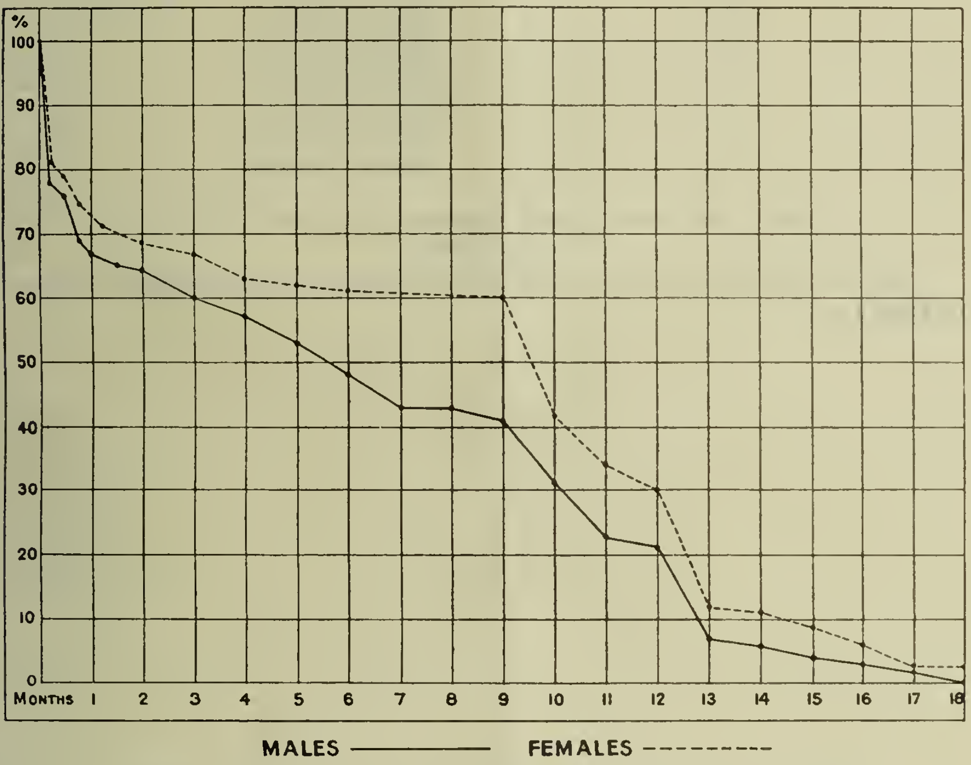
	Breast fed— Not at all.	One week.	Three months.	Six months.	Nine months.	One year.	Eighteen months.
	%	%	%	%	%	%	%
Welfare Centre Cases (both sexes) ...	11·1	88·9	47·0	30·8	23·5	4·35	...
Other Lancashire Cases (both sexes)	17·0	79·5	63·5	54·5	50·5	28·5	5·0
Manning (U.S.A) Private cases (both sexes)	8·1	91·9	64·0	41·0	26·0	11·8	1·6
Mitchell (U.S.A.) (Hospital Class) (both sexes) ...	20·0	80·0	55·0	42·0	34·0	27·0	9·0

It will be observed that there is a fairly close resemblance between the statistics drawn by Manning (U.S.A.) from his 1,000 private cases, and those drawn from the Lancashire Welfare cases on the one hand ; whilst, on the other hand, there is not a marked difference between the figures representing the other Lancashire cases and those compiled by Mitchell (U.S.A.) from his 1,819 cases of the hospital class.

These resemblances suggest that the analysis of the Welfare Centre Records does not present an unjustifiably pessimistic picture of the state of affairs with regard to breast feeding amongst modern infants, and further, that the failure to reach ideal standards in this repect is neither recent nor a phenomenon peculiar to South East Lancashire.

The figures also indicate that poverty is not in itself a bar to successful breast feeding, because after the first three months the percentages of " hospital class" mothers who combine breast feeding are higher than those of the "private cases."

GRAPH B.



Part 2.—Whether the Proportion of Infants Breast Fed is less than it used to be.

The figures taken from the histories of the 315 school children show that in the Districts of South East Lancashire under consideration, the proportion is less than it was five to 14 years ago. The figures are tabulated below, and displayed graphically in Graph B.

Of the 167 school boys :—

21 % were not breast fed at all.
78 ,, were breast fed for one week.
76 ,, ,, ,, two weeks.
69 ,, ,, ,, three weeks.
67 ,, ,, ,, four weeks.
65 ,, ,, ,, six weeks.
64 ,, ,, ,, two months.
60 ,, ,, ,, three months.
55 ,, ,, ,, four months.
51 ,, ,, ,, five months.
48 ,, ,, ,, six months.
43 ,, ,, ,, seven months.
41 ,, ,, ,, nine months.
31 ,, ,, ,, ten months.
23 ,, ,, ,, eleven months.
21 ,, ,, ,, twelve months.
7·8 ,, ,, ,, thirteen months.
7·0 ,, ,, ,, fourteen months.
4·0 ,, ,, ,, fifteen months.
2·9 ,, ,, ,, sixteen months.

Of the 148 school girls :—

13 % were breast fed not at all
81 ,, ,, ,, for one week.
79 ,, ,, ,, two weeks.
75 ,, ,, ,, three weeks.
71 ,, ,, ,, five weeks.
69 ,, ,, ,, two months.
67 ,, ,, ,, three months.
63 ,, ,, ,, four months.
62 ,, ,, ,, five months.
61 ,, ,, ,, six months.
60 ,, ,, ,, nine months.
42 ,, ,, ,, ten months.
34 ,, ,, ,, eleven months.
30 ,, ,, ,, twelve months.
12 ,, ,, ,, thirteen months.
11 ,, ,, ,, fourteen months.
9 ,, ,, ,, fifteen months.
6 ,, ,, ,, sixteen months.
5 ,, ,, ,, seventeen months.
5 ,, ,, ,, eighteen months.

Part 3.—The causes of early Weaning and to what extent they are preventable.

The causes of early weaning in the Welfare Centre cases are classified in Groups in Table I.

TABLE I.

Reasons for Bottle Feeding.

Both Sexes.

Numbers put on the bottle at intervals from Birth to 8 months.

	Birth	1 week.	2 wks.	3 wks.	4 wks.	6 wks.	2 mos.	2½ mos.	3 mos.	3½ mos.	4 mos.	4½ mos.	5 mos.	6 mos.	6½ mos.	7 mos.	7½ mos.	8 mos.	Totals of various causes for weaning at all ages from 0—8/12	Group Percentages (approx.
A.—Ill health associated with Pregnancy or Parturition—																				
1.—Toxæmias of Pregnancy ...	3	...	...	2	...	...	...	...	...	...	...	...	...	...	...	...	...	...	5	
2.—Eclampsia	...	...	...	1	...	...	...	...	...	...	...	...	...	...	...	...	...	...	1	
3.—Difficult Labour	4	...	1	...	2	...	...	...	...	...	...	...	...	...	...	...	...	...	7	
4.—Post Partum Hæmorrnage ...	4	...	1	...	1	...	...	...	...	...	...	...	...	...	...	...	...	...	6	
5.—Puerperal Mania	1	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	1	
6.—Puerperal Fever	1	2	...	...	...	1	...	...	...	...	...	..	...	...	...	...	...	...	4	
7.—Puerperal Hæmorrhage ...	...	...	...	...	1	...	...	...	...	...	...	...	...	...	...	...	...	...	1	12%
8.—Phlegmasia Alba Dolens ("White leg")	1	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	1	
9.—Albuminuria	1	...	1	1	2	1	...	...	...	...	...	...	...	...	...	...	...	...	6	
10.—Tired Multipara	1	...	...	...	...	...	2	...	...	...	1	...	...	...	...	...	...	...	4	
11.—Mother to continue radium treatment for cancer of cervix	1	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	1	
B.—Ill health not directly associated with Pregnancy or Parturition—																				
1.—Influenza and Pleurisy just before confinement	...	...	1	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	1	
2.—Encephalitis Lethargica five weeks before confinement ...	1	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	1	
3.—Tuberculous Spine	...	1	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	1	
4.—Heart Disease	1	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	1	
5.—Rheumatic Fever two years before	1	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	1	
6.—Chronic Colitis	1	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	1	
7.—Delicate—"not strong enough" for breast feeding	2	1	2	...	1	2	2	...	...	1	1	...	1	...	...	...	...	...	13	9%
8.—Diabetes Mellitus	...	...	...	...	...	...	...	...	...	...	...	...	...	1	...	...	...	...	1	
9.—Quinsy	...	...	...	...	...	...	...	...	1	...	...	...	...	...	...	...	...	...	1	
10.—Pneumonia	...	...	...	...	...	...	...	...	...	...	1	...	...	...	...	...	...	...	1	
11.—Jaundice	...	...	...	...	...	1	...	...	...	...	...	...	...	...	...	...	...	...	1	
12.—Influenza	...	...	...	...	...	2	...	...	...	...	...	...	...	...	...	...	...	...	2	
13.—Gastroënteritis	...	...	...	3	...	...	...	...	...	...	1	...	...	...	...	...	...	...	4	
C.—Ill health of Infants—																				
1.—Pyloric Stenosis	...	...	...	...	1	...	...	...	...	...	...	...	...	...	...	...	...	...	1	
2.—Too weak to suckle	2	2	1	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	5	
3.—Nasal obstruction—preventing suckling	...	...	...	...	1	1	...	...	1	...	...	...	...	...	...	...	...	...	3	
4.—Congenital Heart Disease ...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	1	...	...	1	4%
5.—Cavernous Nævus of Lip—weaned on admission to hospital for operation ...	...	...	...	...	...	1	...	...	...	...	...	...	...	...	...	...	...	...	1	
6.—Whooping Cough and Measles...	...	...	...	...	...	1	...	...	...	...	...	...	...	...	...	...	...	...	1	
D.—Diseases of Breast—																				
1.—Cancer	1	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	1	
2.—Retracted Nipples	1	...	...	4	2	...	2	...	...	...	...	...	...	...	...	...	...	...	9	7%
3.—Mastitis	1	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	1	
4.—Breast Abscess	...	2	1	...	2	1	2	1	2	...	...	...	...	...	...	...	...	...	11	
E.—Economic Causes—																				
1.—Mother went to work as soon as strong enough	2	1	1	...	...	1	1	...	1	...	...	...	1	...	...	...	...	...	8	4%
2.—Mother insufficiently nourished—poverty	1	1	...	...	...	1	1	...	1	...	...	...	...	...	...	...	...	...	5	
F.—Worry—																				
1.—Over operation for "tongue-tie" at two days old	...	1	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	1	
2.—Unjustifiably, that infant not getting enough	...	...	1	...	...	1	...	...	...	...	1	...	...	...	...	1	...	...	4	2%
3.—About other child, who is mentally defective	...	...	...	...	1	...	...	...	...	...	...	...	...	...	...	...	...	...	1	
G.—Bad Management—																				
1.—Overfeeding	...	...	...	...	1	...	...	...	1	...	...	...	...	...	...	...	...	...	2	
2.—Irregular feeding	...	...	...	...	...	...	1	...	2	...	...	...	...	...	...	...	...	1	4	
3.—Infantile Dyspepsia	...	1	1	1	...	...	1	...	...	...	...	...	...	...	...	...	...	...	4	6%
4.—Careless Mother	...	...	...	...	...	1	1	...	...	1	...	1	...	...	...	...	...	...	4	
5.—Interference from *Grandmother*, and neighbours	...	...	1	...	1	...	...	1	...	...	...	...	...	...	...	...	...	...	3	
H.—Other Reasons—																				
1.—Infants "not satisfied" ...	...	...	2	2	...	1	2	1	1	1	...	...	1	...	...	...	...	...	11	
2.—" No milk"	8	1	...	...	1	...	...	...	...	...	1	...	...	...	...	...	...	...	11	
3.—" Milk went"	...	2	14	6	4	1	3	3	...	...	...	...	2	...	...	...	...	...	35	22%
4.—Long interval since previous pregnancy	1 12 yrs.	...	1 7 yrs.	...	...	...	...	...	3	...	1	...	...	1	1	...	...	...	8	
5.—Elderly Primipara	1	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	1	
J.—No Reason Noted	4	5	9	...	8	9	10	4	13	2	7	3	10	5	2	6	2	5	104...34%	
Totals ...	45	20	38	20	29	26	28	10	26	5	14	4	15	7	3	8	2	6	306	

A consideration of Table I. shows that the causes of early weaning fall into two main subdivisions—preventable and unavoidable.

The large Group "J" (34 per cent.) represents an important gap in the information available. Here no reason is noted on the card because either the mother had not been in to see the Medical Officer between the time of weaning and the time of collecting the statistics, or the reason given was considered too inadequate to be recorded. The vagueness of the statements made in these cases suggests that in most of them early weaning might have been avoided had the mother so desired.

In Group "H" (22 per cent.) most of the first three causes (" Infant not satisfied," " No milk," and ' Milk left") could be placed in the same category of "reason too indefinite to record." A large proportion of these is preventable. It may be that in some mothers, *e.g.*, those who were exhausted by a difficult labour, the milk supply really did fail to appear or continue, but more often the mother's statement was noted down without comment because it was too long after the event to diagnose the real reason. Unfortunately, the average mother ignores all causes for a baby's crying except hunger, and promptly weans her baby as soon as it becomes fretful or gets colic, acting on the assumption that "it is not satisfied" ; whereas the trouble is most likely to be overfeeding, which could have been regulated by timely advice at the Welfare Centre. Nos. 4 and 5. " Long interval since previous pregnancy" and "elderly primipara" need no special comment. In them long disuse of the lactating function has led to its atrophy.

In Group " G" (6 per cent.) bad management and overfeeding lead to "infantile dyspepsia." The mother concludes that her milk disagrees and the infant is weaned. " Irregular feeding" either operates in the same way, or the irregular stimulus to the breast leads to a failure of lactation. The " Careless Mother" combines neglect of personal hygiene with over-feeding, or irregular feeding, or both ; and so the infant gets diarrhoea, and is weaned, or her milk supply fails. Alternatively she may wean the child deliberately because she cannot be "bothered" with breast feeding. " Interference from grandmother or neighbours" leads the mother to think that her milk supply is insufficient or unsuitable. She may even against her better judgment, be made to wean her child because her adviser (grandmother or neighbour) has reared a family of her own. The belief that a woman who has reared a family of her own is therefore qualified to give expert advice on all matters pertaining to infant welfare is widely held by the general public, and is one of the chief obstacles in the way of their education in infant management.

In Group "F" " Worry," (2 per cent.) depends largely on the temperament of the individual. When it concerns matters other than the weaning of the infant, *e.g.*, about other children in the family, or about financial difficulties, little can be done. Unnecessary worry over the infant's progress, induced by interference from ignorant advisers, has been discussed under the previous heading. When the mother is of the worrying type it is difficult to help. In one case, weaned after four months, both nurse and doctor waged a losing battle all the way through to keep the infant at the breast, on which it was making excellent progress. At four months the mother had her way, and weaned the infant, but she stayed away from the Welfare Centre for some months afterwards.

Group " E " " Economic Causes" (4 per cent.) is difficult to remedy. A mother cannot be made to give up her work to stay at home and feed her baby. Often she is the only breadwinner in the family. It is cheaper for her to work and buy artificial food for her infant than to stay at home and feed it. Only exceptionally strong women are able both to go out to work and to feed their babies as well. The other economic cause of failure to breast feed is ill nourishment through poverty. In these cases early weaning is probably the better policy to pursue in the interests both of mother and child. Matters are often further complicated by the worry of striving to make both ends meet.

Group "D." Diseases of the Breast (7 per cent). With the exception of cancer, the diseases mentioned indicate a failure of ante-natal care. Either the mother was too busy (*e.g.*, managing a large family and unemployed husband) or too careless to carry out the necessary regimen ; or for both of these reasons, plus ignorance, she failed to obtain ante-natal advice. Many women do not book either doctor or midwife till the last minute. The County Nurses help when they become aware of cases in their districts, but their advice is not sought very frequently. The number of mothers who come voluntarily to the Clinic for advice is negligible.

Group "C." Ill health of the Infant (4 per cent.) as a cause of bottle feeding is mostly unavoidable, but those who were too weak to suckle might have been born stronger if the mothers had received ante-natal care, which might have improved their health during pregnancy and prevented the difficult confinements that are often responsible for the birth of weak babies. Of those weaned for nasal obstruction, one was subsequently admitted to hospital for removal of adenoids. The other two had chronic nasal catarrh and "snuffles."

Group "B." (9 per cent). These are all unavoidable causes of weaning except perhaps those classified under "delicate." Some of the "delicate" mothers may have been persuaded by themselves or their friends and relatives that they were not strong enough to breast feed their infants.

Group "A." (12 per cent). When discussing the prevention of breast diseases the need for more ante-natal supervision was emphasised and some of the reasons for its lack were mentioned. The whole question of ante-natal care is discussed so fully in the reports of the Maternal Mortality Committee that there is no need to elaborate here, but it is evident that Group "A" represents a mass of pre- and post-partum morbidity, which might have been prevented.

Table II. is compiled from the histories of the 315 school children who were infants from 5 to 14 years ago.

TABLE II.

Numbers of Infants (both sexes) put on the bottle at intervals from birth to 7 months.

	Birth	1 week.	2 wks.	3 wks.	4 wks.	5 wks.	6 wks.	2 mos.	3 mos.	4 mos.	5 mos.	6 mos.	7 mos.	Totals	Group Per centages (approx.)
A.—Ill-health associated with Pregnancy or Parturition—															
1.—Toxæmias of Pregnancy ...	1	...	...	...	...	...	...	...	...	...	...	...	...	1	
2.—Eclampsia	1	1	...	...	...	...	...	1	1	...	...	...	...	4	
3.—Difficult Labour	12	...	...	...	...	...	...	...	...	...	...	...	...	12	
4.—Post-partum Hæmorrhage ...	1	...	...	...	...	...	...	...	...	...	...	...	...	1	24 15%
5.—Puerperal Fever	1	2	...	...	...	...	...	...	...	...	...	...	...	3	
6.—Cancer (region affected not stated)	1	...	...	...	...	...	...	...	...	...	...	...	...	1	
7.—Chronic Pyelitis and Cystitis	1	...	...	...	...	...	...	1	...	...	...	...	...	2	
B.—Ill-health not directly associated with Pregnancy or Parturition—															
1.—Mother died (cause not stated)	...	...	...	...	...	...	...	...	1	...	...	...	...	1	
2.—Phthisis	...	...	...	...	...	...	...	...	2	...	...	...	...	2	
3.—Heart Disease	1	...	...	...	...	...	...	...	...	...	...	...	...	1	
4.—Delicate ; "not strong enough" to feed from the breast ...	7	1	2	2	...	...	...	...	2	1	1	1	...	17	
5.—Mother admitted to hospital for operation	...	...	...	...	...	...	1	...	...	...	1	...	...	2	28 18%
6.—Pneumonia	...	...	...	...	...	...	...	...	...	...	...	1	...	1	
7.—Appendicitis	...	...	...	...	...	...	...	...	...	...	...	...	1	1	
8.—Neurasthenia	...	...	...	...	1	...	...	...	...	...	...	...	...	1	
9.—Influenza	...	...	...	...	...	...	...	...	2	...	...	...	...	2	
C.—Ill-health of Infant—															
1.—Too weak to suckle	2	...	...	1	...	...	...	...	...	...	...	...	...	3	
2.—Pneumonia	...	...	...	...	...	...	...	...	...	1	...	...	...	1	5 3%
3.—Ulcerative Stomatitis	...	...	...	...	...	...	...	...	...	...	...	1	...	1	
D.—Diseases of Breast—															
1.—Breast abscess	2	1	...	...	...	...	...	1	1	1	...	1	...	7	7... 4%
E.—Economic Causes—															
1.—Mother went to work	5	...	4	...	...	...	...	2	...	1	...	...	...	12	
2.—Mother insufficiently nourished —poverty	1	...	1	...	...	...	...	1	...	1	...	...	...	4	18 11%
3.—Mother insufficiently nourished (War-time rations 1917 and 1918)	1	...	...	...	1	...	...	...	...	...	...	...	...	2	
F.—Worry—															
1.—Because other child is undergrown	1	...	...	...	...	...	...	...	...	...	...	...	...	1	
2.—Thought she had become pregnant again	...	...	...	...	...	...	...	...	1	...	...	...	...	1	4 3%
3.—Bereavement	...	...	...	...	...	...	...	...	1	...	...	...	...	1	
4.—Because infant had a hernia ...	...	...	...	...	...	...	1	...	...	...	...	...	...	1	
G.—Bad Management—															
1.—Interference from grandmother or neighbours	1	...	...	...	...	...	...	...	...	...	...	...	...	1	
2.—Infantile Dyspepsia	...	1	...	...	...	...	...	...	...	...	...	...	...	1	3 2%
3.—Careless mother	...	...	...	...	...	...	...	...	1	...	...	...	...	1	
H.—Other Reasons—															
1.—Infant "not satisfied" ...	...	1	1	...	...	...	...	...	1	...	...	...	...	3	
2.—" No milk "	9	...	1	...	...	...	...	...	...	...	...	...	...	10	
3.—" Milk went "	...	...	4	3	2	...	...	2	1	1	1	5	...	19	
4.—Long interval since previous Confinement	...	...	1	1	...	...	...	...	...	...	...	...	...	2	
5.—Adopted...	...	...	...	1	...	...	...	...	...	...	...	...	...	1	38 24%
6.—" Never fed" any of her children more than three months	...	...	...	...	...	...	...	...	1	...	...	...	...	1	
7.—" Couldn't feed" any of her four children	1	...	...	...	...	...	...	...	...	...	...	...	...	1	
8.—Mother obese	1	...	...	...	...	...	...	...	...	...	...	...	...	1	
J.—No Reason Noted (or, reason not recalled by mother)	14	...	3	2	...	1	1	2	1	1	4	1	2	32	32...20%
Totals	64	7	17	10	4	1	3	10	16	7	7	10	3	159	

Table II.—Shows the reason why they were weaned before they were nine months old. The reasons given were classified under headings and groups similar to those given in Table I. It is, therefore, unnecessary to go into a detailed discussion of Table II.—the comments made on Table I. apply here, but it is interesting to compare the two tables by group percentages and by rough estimation of the percentages in each group that are preventable, *e.g.*, if it be admitted that in Table I., Group D., all the " Diseases of the Breast," except cancer, are preventable, it can be said that 6 per cent. of the total (30 per cent.) are preventable.

	Welfare Centre Cases.		School Children.	
	Percentage.	Preventable.	Percentage.	Preventable.
Group "A" Pre- or post-partum morbidity ...	12	6	15	7
Group "B" Ill-health not directly associated with pregnancy or parturition	9	2	18	?
Group "C" Ill-health of infant	4	1	3	1
Group "D" Diseases of the Breast	7	6	4	4
Group "E" Economic causes	4	None	11	None
Group "F" Worry	2	None	3	3
Group "G" Bad Management	6	6	2	2
Group "H" Other Reasons	22	6	24	20
Group "J" No Reason noted	34	17	20	10
Totals	100	44	100	47

It will be observed in Table II. that some of the mothers attributed failure of lactation to insufficient nourishment from war time rationing in 1917 and 1918.

More difficult to assess than any of the causes listed in the foregoing table, is the influence of modern civilization upon the nursing mother. It seems probable that it is an adverse factor of considerable importance.

Before leaving the subject of early weaning and its prevention, mention must be made of the influence of the Welfare Centre in this respect. The difficulty is that the majority of the mothers do not give the workers at the Centre the opportunity to advise them soon enough. Of the 407 Welfare Centre babies under consideration, only 40 per cent. had been brought to the Centre by the time they were four weeks old. Of the remaining 60 per cent., who were brought at subsequent ages up to seven months, 54 per cent. had been already weaned before their first visit to the Centre. Many of the mothers who join late admit frankly that they have come because they have heard from a neighbour that dried milk can be obtained cheaply from the Centre. Unfortunately, enthusiasm to learn mothercraft is not yet as widespread as could be desired.

Part IV.—To what extent the health of the School Child is influenced by the method of feeding (artificial or breast) in infancy.

The method of obtaining the statistics for this part of the investigation is explained at the beginning of the article. They are set out in Table III. In it the past medical histories and "present condition" of 315 school children are correlated with the histories of their feeding in infancy. For example, of those weaned at 6 months of age, 60 per cent. were in good general condition when they reached school age, and 40 per cent. were delicate. It has been explained already that the meaning attached to the word "delicate" is the definition of the Board of Education, namely, a condition of "pre- or latent-tuberculosis, malnutrition, debility, anaemia, etc." The group "fair" includes all border-line cases, whose general condition was far from good, yet they were not bad enough to label " delicate." They were in a state of sub- rather than mal-nutrition.

TABLE III.

Percentages of School Children between the ages of 5 years and 14 years, bottle fed from :—

		Birth	2 weeks	4 weeks	5—12 weeks	6 mths.	9 mths.	12 mths.	18 mths.
PAST HISTORY (ILLNESSES)—									
Measles		90%	79%	72%	85%	100%	87%	72%	96%
Whooping Cough		38%	37%	39%	54%	50%	43%	51%	40%
Scarlet Fever		16%	20%	nil	27%	nil	11%	22%	nil
Diphtheria		11%	16%	nil	3%	8%	4%	4%	nil
Mumps		9%	12%	5%	24%	20%	17%	13%	11%
Chicken Pox		36%	37%	39%	42%	58%	41%	44%	29%
Bronchitis	Once	14%	29%	44%	24%	37%	38%	30%	22%
	More than once ...	2%	nil	nil	nil	nil	nil	2%	nil
Pneumonia	Once	27%	29%	22%	24%	29%	20%	19%	18%
	More than once ...	5%	nil	nil	nil	nil	2%	4%	nil
Chronic Nasal Catarrh		8%	nil	16%	nil	12%	5%	2%	8%
Tonsillitis		3%	8%	5%	9%	12%	5%	8%	16%
Tonsils and Adenoids removed ...		8%	4%	5%	3%	nil	4%	4%	nil
Cervical Adenitis (non-tuberculous)		nil	8%	nil	nil	nil	nil	nil	nil
Glandular Tuberculosis	Abdominal ...	nil	4%	nil	nil	nil	nil	nil	nil
	Cervical	5%	nil	nil	3%	nil	nil	6%	4%
Otitis Media		9%	4%	nil	12%	8%	22%	16%	22%
Rheumatic Fever		2%	nil	nil	nil	nil	nil	1%	nil
Rheumatism (including Chorea)		2%	nil	nil	3%	16%	nil	6%	nil
Acute Poliomyelitis		2%	nil	nil	nil	nil	2%	1%	nil
Meningitis		2%	nil	nil	nil	4%	2%	1%	nil
Septicæmia		2%	nil	nil	nil	nil	nil	nil	nil
Osteomyelitis		nil	4%	nil	nil	nil	nil	nil	nil
CONDITION ON EXAMINATION—									
General condition Good		29%	40%	40%	28%	60%	57%	62%	62%
General condition Fair		21%	19%	10%	22%	nil	nil	7%	14%
Delicate		50%	41%	50%	50%	40%	43%	31%	24%
Rachitic Deformities		6%	4%	5%	nil	nil	nil	6%	nil
Diseased Tonsils and Adenoids ...		17%	20	17%	27%	16%	20%	20%	22%
Organic Heart Disease (except "congenital")		nil	nil	nil	nil	nil	4%	nil	nil

The writers of text books on infant feeding are apt to wax dogmatic on the subject of breast feeding. Among other advantages they claim for it the power to confer upon the infant increased resistance against disease in after life, and it is clearly implied that the artificially fed infant is handicapped more or less for life as compared with the breast fed, in respect of stamina and general health. That the infant mortality rate during the first few weeks of life is higher amongst the artificially fed than the breast fed, no one would deny ; but is it true that the survivors amongst artificially fed infants carry with them into the succeeding years a lowered resistance to disease and an inferior standard of general health as compared with the breast fed ? Table III. does not support such a conclusion. It does not show that artificially fed infants suffered more from illnesses in childhood than the breast fed. Some illnesses, indeed (*e.g.*, otitis media, chronic coryza, tonsillitis and exanthemata), seem to have had a markedly greater incidence upon those weaned late than upon those weaned early. Perhaps the greater incidence of pharyngeal diseases and otitis media amongst the breast fed is attributable partly to the tendency of breast fed babies to be more fretful than the artificially fed, with the result that they are given the notorious "dummy" more frequently.

The figures grouped under "condition on examination" do give some support for the theory that breast feeding in infancy may influence favourably the general health in childhood, for the percentage of those in good general health is maintained at about 60 per cent. in those who were breast fed from birth to between 6 and 18 months ; whilst of those fed at the breast for shorter periods only 28—40 per cent. —enjoyed good health. Similarly the percentage of "fair" and "delicate" children steadily falls as the period of breast feeding increases. It is noticeable that the rise in percentage of those in good health and the decline in percentage of those in poor health does not occur to any great extent until the 6 months column is reached indicating the logical conclusion that for a method of infant feeding to have any permanent effect at all it must be continued for a long period.

When all this has been said it cannot be claimed that the figures in Table III. support the view that the health of the school child can be predetermined by the method of feeding during the infancy alone. It is here submitted that there is on the part both of medical practitioners and of the general public, a tendency to feel that if only the infant can be piloted safely through the first year it will look after itself in the succeeding years. Even the forces of preventive medicine have been so concentrated upon the reduction of infant mortality (admittedly with striking success) on the one hand ; and upon the health of the school child on the other ; that the intervening period of the child's life has suffered a comparative neglect. True the Welfare Centre is there to give advice on the management of children over one year, but most of the mothers cease to attend regularly after the baby's first birthday, either because attendance has been made difficult by the occurrence of another pregnancy ; or, and this is the chief reason, because they fail to realise the necessity for doing so. No better example could be found of the general neglect of child welfare after the first year than in the figures in Table III. to the effect that the percentage (6 per cent.) of rachitic deformities is as high amongst the children who were breast fed to 12 months, as amongst those who had no breast milk at all.

In recent years the Chief Medical Officer to the Board of Education in his Annual Reports, has pointed out from year to year that the mass of minor defects and crippling amongst school children remains unreduced despite the long sustained efforts of the school Medical Service. From this he deduces that the attention of the preventists should be directed more to the case of the child from 1 to 5 years of age, so that its health may be maintained through the pre-school years, and the child delivered into the hands of the School Medical Service at a higher level of general health than heretofore and free from defects that are difficult or impossible to cure. The statistics given in Table III., although working from the other end of the scale, lend themselves to the same conclusion.

Conclusions.

(1) Of the infants attending two Child Welfare Centres in South East Lancashire during 1929 and 1930, only 50 per cent. were breast fed to 3 months, 30 per cent. to 6 months, and 25 per cent. to 9 months.

(2) In at least 40 per cent. of those weaned prematurely, breast feeding could have been maintained if the mothers had been willing to seek advice before and after the birth of the child.

(3) Most of the mothers do not come to the Welfare Centre early enough.

(4) The breast fed infant is not more resistant to disease in childhood than the artificially fed infant, and the general health of the school child cannot be predetermined by the method of its feeding (breast or artificially) during infancy.

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Dr. H. Holroyd contributes the following :—

SURVEY OF VISION AT CERTAIN ELEMENTARY SCHOOLS IN EAST LANCASHIRE.

The following investigation was undertaken with the object of comparing the eyesight of the boys of the Secondary Schools in the various districts of East Lancashire as shown by their reading of the Snellen's test types. The vision in each case was taken without glasses, but the Snellen record distinguishes between those who wear glasses and those who do not. Before the inquiry was commenced, it had been noticed in one area that there seemed to be an excess of blind persons, and it was thought that there might be some relation between the eyesight of these boys and the number of blind persons in the area.

The relationship however cannot be really close because the blind persons are of all ages and both sexes.

Secondary School "A"

Age.	No. Seen.	6/6 both eyes.		6/9 one eye or less other.		6/12 one eye or less other.		6/18 one eye or less other.		6/24 one eye or less other.		6/36 one eye or less other.		6/60 one eye or less other.		6/0 one eye or less other.		Total Glasses.
		—	+	—	+	—	+	—	+	—	+	—	+	—	+	—	+	
19	1	1	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
18	5	3	...	...	...	...	...	...	1	...	...	...	...	...	...	...	1	2
17	13	8	...	...	1	1	...	...	2	...	...	...	...	...	...	...	1	4
16	37	30	...	2	...	...	...	...	...	...	1	...	2	...	2	...	...	5
15	48	30	...	1	...	...	1	1	1	...	6	1	1	1	2	...	3	14
14	50	40	...	3	1	...	1	1	2	...	...	...	1	...	1	...	...	6
13	57	39	2	1	1	4	...	2	1	1	4	...	2	...	...	...	...	10
12	47	35	...	6	...	...	1	1	1	...	1	1	1	...	...	...	...	4
11	32	20	...	6	...	2	...	...	2	1	...	...	...	...	1	...	...	3
10	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
9	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Tot.	290	206	2	19	3	7	3	5	10	2	12	2	7	1	6	...	5	48

Wearing Glasses + Not Wearing Glasses —

SECONDARY SCHOOL “B”

Age.	No. Seen.	6/6 both eyes.		6/9 one eye or less other.		6/12 one eye or less other.		6/18 one eye or less other.		6/24 one eye or less other.		6/36 one eye or less other.		6/60 one eye or less other.		6/0 one eye or less other.		Total Glasses.
		—	+	—	+	—	+	—	+	—	+	—	+	—	+	—	+	
19	1	1	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
18	1	...	...	1	...	...	...	...	...	...	...	...	...	...	...	...	...	...
17	3	3	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
16	5	2	...	1	...	...	...	...	...	...	...	...	2	...	...	...	...	2
15	15	12	...	...	...	...	1	...	...	...	...	...	...	...	1	...	1	3
14	23	18	...	2	...	...	...	...	1	...	...	...	...	...	2	...	...	3
13	26	19	...	1	...	...	...	1	...	...	1	...	2	...	2	...	...	5
12	14	8	...	2	...	...	1	...	...	...	1	...	...	...	...	...	2	4
11	16	9	...	3	...	1	...	...	1	...	...	...	1	...	...	...	1	3
10	5	3	...	...	...	...	...	1	1	...	...	...	...	...	...	...	...	1
9	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Tot.	109	75	...	10	...	1	2	2	3	...	2	...	5	...	5	...	4	21

SECONDARY SCHOOL “C”

Age.	No. Seen.	6/6 both eyes.		6/9 one eye or less other.		6/12 one eye or less other.		6/18 one eye or less other.		6/24 one eye or less other.		6/36 one eye or less other.		6/60 one eye or less other.		6/0 one eye or less other.		Total Glasses.
		—	+	—	+	—	+	—	+	—	+	—	+	—	+	—	+	
19	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
18	.4	2	1	...	...	...	...	...	...	...	...	...	...	...	...	...	1	2
17	6	2	...	...	...	...	...	...	1	...	2	...	...	...	1	...	...	4
16	19	10	...	2	1	1	...	2	...	...	3	...	...	...	...	...	...	4
15	29	12	...	1	1	1	1	3	1	...	2	...	2	...	2	...	3	12
14	31	16	...	2	2	1	...	1	1	...	2	...	3	...	2	...	1	11
13	36	26	...	2	...	...	...	1	...	...	1	...	1	1	3	...	1	6
12	23	17	...	1	...	1	...	...	1	...	...	...	...	...	2	...	1	4
11	25	15	...	...	1	...	...	1	3	1	...	...	...	...	2	...	2	8
10	2	1	...	...	...	1	...	...	...	...	...	...	...	...	...	...	...	...
9	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Tot.	175	101	1	8	5	5	1	8	7	1	10	...	6	1	12	...	9	51

SECONDARY SCHOOL “D”

Age.	No. Seen.	6/6 both eyes.		6/9 one eye or less other.		6/12 one eye or less other.		6/18 one eye or less other.		6/24 one eye or less other.		6/36 one eye or less other.		6/60 one eye or less other.		6/0 one eye or less other.		Total Glasses.
		—	+	—	+	—	+	—	+	—	+	—	+	—	+	—	+	
19	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
18	1	1	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
17	3	2	...	...	...	...	...	...	...	...	...	...	1	...	...	...	...	1
16	11	9	...	...	1	...	...	...	...	...	1	...	...	...	...	...	...	2
15	12	8	...	...	...	...	...	...	1	...	1	...	1	...	1	...	...	4
14	19	16	...	...	...	...	...	...	...	...	1	...	1	...	...	...	1	3
13	19	13	1	1	...	...	1	...	1	1	...	...	1	...	...	...	...	4
12	17	12	...	1	...	...	1	...	1	1	1	...	...	...	...	...	...	3
11	12	11	...	...	...	...	...	...	...	...	...	1	...	...	...	...	...	...
10	6	5	...	...	1	...	...	...	...	...	...	...	...	...	...	...	...	1
9	2	2	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Tot.	102	79	1	2	2	...	2	...	3	2	4	1	4	...	1	...	1	18

Secondary School "E"

Age.	No. Seen.	6/6 both eyes.		6/9 one eye or less other.		6/12 one eye or less other.		6/18 one eye or less other.		6/24 one eye or less other.		6/36 one eye or less other.		6/60 one eye or less other.		6/0 one eye or less other.		Total Glasses.
		—	+	—	+	—	+	—	+	—	+	—	+	—	+	—	+	
19	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
18	1	...	...	...	...	...	...	...	...	...	1	...	...	...	...	...	...	1
17	3	...	...	...	...	...	1	...	1	...	...	...	...	...	...	...	1	3
16	18	12	1	...	...	...	1	...	3	...	...	...	...	...	1	...	...	6
15	29	18	...	2	...	...	...	2	4	...	...	...	2	...	...	...	1	7
14	36	25	...	4	...	...	1	...	1	...	1	...	1	...	1	...	2	7
13	32	22	...	...	1	...	...	1	2	...	2	...	2	1	1	...	...	8
12	26	20	...	1	...	2	...	...	...	...	...	...	2	...	...	...	1	3
11	31	22	...	4	1	1	...	1	...	...	1	...	...	...	1	...	...	3
10	11	8	1	1	...	...	...	...	...	...	...	...	...	1	...	...	...	1
9	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Tot.	187	127	2	12	2	3	3	4	11.	...	5	...	7	2	4	...	5	39

As the number of boys examined in each school varied from 290 to 102, a table, showing the percentage of defects in each group would make a comparison between the different Schools easier.

The fact that an equal number of boys was not examined at each school may cause slight discrepancies, but will not invalidate a comparison between the different schools.

The following tables give the percentage of defects in each group, for each school.

Number and Percentage of Snellen's Test Results.

	No.	6/6	6/9	6/12	6/18	6/24	6/36	6/60	6/0
		%	%	%	%	%	%	%	%
School A	290	71·72	7·58	3·44	5·17	4·82	3·1	2·41	1·72
,, B	109	68·81	9·17	2·75	4·58	1·83	4·58	4·58	3·66
,, C	175	58·29	7·42	3·42	8·57	6·28	3·42	7·42	5·14
,, D	102	78·43	3·92	1·96	2·94	5·88	4·9	·98	·98
,, E	187	68·98	7·48	3·2	8·02	2·67	3·74	3·2	2·67

On examining the table it will be seen that the percentage of normal cases is the highest at "D", and the lowest at "C" In the case of the 6/9 and 6/12 groups, "A," "B," "C," and "E" are very similar, but "D" is about half the number.

For simplification of comparison it would be advantageous to divide the boys into three classes :—

Normal.—Those seeing 6/6 with one eye and the same or less with the other eye.

Slighi Defects.—Those seeing 6/9 or 6/12 with one eye and the same or less with the other eye.

Grave Defects.—Those seeing 6/18, 6/24, 6/36, 6/60, or 6/0 with one eye and the same or less with the other eye.

The following tables give the classifications under the different headings :—

	No.	Normal.	Slight Defects.	Grave Defects.
School "A"	290	71·72%	11·03%	17·24%
School "B"	109	68·81%	11·93%	19·26%
School "C"	175	58·29%	10·86%	30·86%
School "D"	102	78·43%	5·88%	15·69%
School "E"	187	68·98%	10·7%	20·32%

On examination of the above table it will be noticed that, whilst the slight defects in all the schools are much about the same, the grave defects are markedly higher in the case of School "C" where the grave defects are more than 10 per cent. greater than in the next school, and are nearly double School "D" which has the lowest number of defects.

During the whole examination, 863 boys were examined, of whom 594, or 68·83 per cent., had normal sight; 90, or 10·43 per cent., had slight defects; and 179, or 20·74 per cent., had grave defects. The following table shows the percentage rise and fall in each school compared to the average of the whole area :—

	No.	Normal.	Slight Defects.	Grave Defects.
Total Boys	863	68·83%	10·43%	20·74%
School "A"	290	+2·89%	+0·6%	—3·5%
School "B"	109	—0·02%	+1·50%	—1·48%
School "C"	175	—10·54%	+0·43%	+10·12%
School "D"	102	+9·6%	—4·55%	—5·05%
School "E"	187	+0·15%	+0·27%	—0·42%

Blind Persons.

The percentages of blind persons in the areas in which the above schools are situated have been ascertained and the results are set out below :—

Blind persons per 1,000 of population :—

District	A	1·56
,,	B	1·49
,,	C	2·28
,,	D	1·87
,,	E	1·21

The populations of these areas vary from 17,000 to 44,000.

It will be noticed that Area C in which school C. is situated has the largest percentage of blind persons and the largest percentage of sight defects in the school.

The order of ranking for defects of sight in school and blindness of population is shown below :—

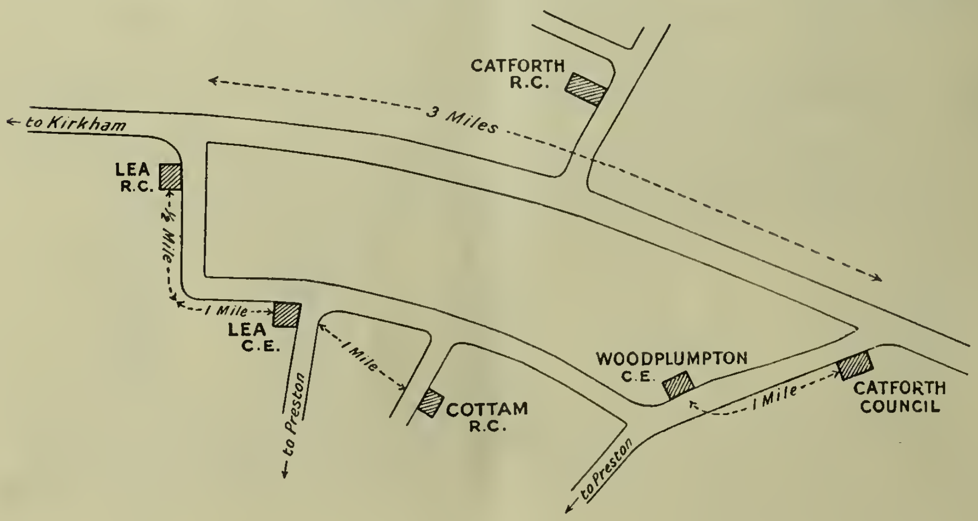
	Rank for Defective Sight.	Rank for Blindness.
A ...	4 ...	3
B ...	3 ...	4
C ...	1 ...	1
D ...	5 ...	2
E ...	2 ...	5

It should be borne in mind that the defective sight is that of boys attending a Secondary School, whereas the blindness is that of the whole district in which the school is situated.

Dr. W. C. V. Brothwood contributes an account of an outbreak of

EPIDEMIC CATARRHAL JAUNDICE.

The following is an account of Epidemic Catarrhal Jaundice as it occurred amongst certain schoolchildren in the townships of Woodplumpton, Catforth and Lea. The following sketch shows the positions of the schools affected, and the approximate distances between them and other schools which were not affected.



The district is rural in character, but there is a public water supply. In only one affected household was pump-water used. Most of the people are engaged in farming, and it is characteristic that they work very hard in the summer, and go about very little in the winter. Therefore, although the distances between the schools are small, children of one school rarely meet those of a neighbouring school. A careful enquiry failed to reveal the probable point of contact between Woodplumpton and Lea.

The schools affected were Woodplumpton C.E., Catforth R.C. and Lea R.C. The average attendances at these schools were 52, 31 and 25 respectively, and the number of cases 8, 8 and 9.

There are three other schools in the neighbourhood—Catforth Council, Cottam R.C. and Lea C.E.—but no cases of jaundice occurred in these.

The first case reported was at Woodplumpton on March, 18th, 1930. Catforth had its first case on April 17th, and Lea on May 3rd.

The Woodplumpton Cases.

Case.	Age.	Date of Onset.
H.W.	(10)	March 17th.
A.B.	(9)	March 18th.
D.B.	(13)	March 28th.
J.E.W.	(7)	April 8th.
E.B.	(9)	April 14th.
J.W.	(4)	May 8th.
W.W.	(10)	May 22nd.
G.B.W.	(6)	June 4th.

Two families provided seven of the eight cases :—

A.B.(2)	March 18th.
D.B.(2)	March 28th.
E.B.(2)	April 14th.
J.E.W.	April 8th.
J.W.	May 8th.
W.W.	May 22nd.
G.B.W.	June 4th.

The Catforth Cases.

V.H.	(10)	April 17th.
W.B.	(13)	May 17th.
M.H.	(9)	May 20th.
M.H.*	(17)	May 20th.
M.H.	(9)	June 7th.
E.W.	(8)	June 11th.
R.B.	(9)	June 11th.
M.B.	(12)	June 15th.
R.W.	(6)	August 13th.

*This is not a school girl.

Grouped into families—

V.H.	April 17th.
M.H.	May 20th.
M.H.	May 20th.
W.B.(1)	May 17th.
R.B.(1)	June 11th.
M.B.(1)	June 15th.

The Lea Cases.

F.T.	(3)	May 3rd.
M.N.	(8)	May 3rd.
H.M.	(4)	May 6th.
M.T.	(4)	May 6th.
J.A.	(6)	May 6th.
J.N.	(6)	May 8th.
R.P.	(6)	May 8th.
C.A.	(9)	May 14th.
W.A.	(12)	May 14th.

There were two cases in each of these families :—

F.T.	May 3rd.
M.T.	May 6th.
M.N.	May 3rd.
J.N.	May 8th.
C.A.	May 14th.
W.A.	May 14th.

Incubation Period.

It must be granted that it is in family groups that we shall be most likely to estimate correctly the incubation period. In these the children are in much closer contact than are individuals in schools ; they often sleep together.

We see that cases appear either almost simultaneously, or at long intervals. Where they occur simultaneously we may assume that they were exposed to infection at the same time. In the H., B.(1)., T., N. and A. families there are examples of simultaneous onset.

In the H. and B.(1). families the secondary cases follow at an interval of about one month. This is also the case in the B.(2). and W. cases, but in each of the latter families there is an intervening case for which it is difficult to account.

Degree of Infectivity.

This is fairly high. In the three schools 16 per cent., 25 per cent and 33 per cent. approximately were affected.

Fairly close contact appears to be necessary for of the 25 total cases, no less than 19 occurred in family groups of two or more. Further, a young brother of the N. family did not contract the disease.

Age Incidence.

Of the 25, six were five years old or younger, 15 were 6–10 years old, and four were 11 years or older. Most of the children in school were in the 6–10 years group.

Sex.

Thirteen males and 12 females were attacked.

Clinical Features.

Only a few cases were seen in the acute stage, and therefore many points of clinical interest were not seen.

In nearly all cases there was obtained a history of lassitude which preceded the actual acute onset by three or four weeks. During that period the children, on returning from school, wanted to lie down, and only after so doing could they be persuaded to take their tea.

For a few days—four or five—before the acute onset this lassitude was more marked, and was associated with nausea, headache, loss of appetite, fretfulness and feverishness. Eight children did not show this prodromal stage.

The acute onset manifests itself by pain and vomiting.

Vomiting was present in all cases and in some it was intractable. In the most severe cases not even water could be retained.

Pain. In only a few cases was the pain of more than moderate severity, and in seven cases there was no pain beyond that due to constant retching. In four cases the pain was localised to the gall-bladder area, in six to the epigastrium, in six to the abdomen generally, in one to the liver, and one to the substernal region.

In general on the appearance of jaundice the acuteness of the condition subsided, and the patient was more comfortable. This, however, was not the case in those with severe vomiting. Here emesis continued for a few days after the onset of jaundice.

Jaundice appeared two to three days after the acute onset, first in the conjunctiva, and then neck and shoulders. Its duration varied with the severity of the attack. There were no hæmorrhages ; only one patient complained of itching, and in only two cases was the liver palpable.

Stools. In 22 cases the motions were clay-coloured ; in three cases they were green and offensive throughout. These three cases were only slightly pigmented, and it would seem that not all the bile channels were occluded, and so a small amount of bile escaped into the intestine. This, however, was not sufficient to prevent putrefaction, and consequent irritation of the mucosa, and the production of green diarrhoea.

Cases of constipation, non-departure from the usual habit, and diarrhoea were about equal in number.

In no case was there any sign of coryza, laryngitis or bronchitis.

APPENDIX.

STATISTICAL TABLES IN RESPECT OF THE ROUTINE INSPECTION OF ELEMENTARY SCHOOLS CARRIED OUT DURING THE YEAR ENDED 31st DECEMBER, 1930.

TABLE I.—Return of Medical Inspections.

A.—Routine Medical Inspections.

Number of Code Group Inspections—		
Entrants	13,034	
Intermediates	13,728	
Leavers	9,574	
Total		36,336
Number of other Routine Inspections ...		—

B.—Other Inspections.

Number of Special Inspections	19,631	
Number of Re-inspections	39,715	
Total		59,346

TABLE II.

A.—Return of Defects found in the course of Medical Inspection in 1930.

	Defect or Disease.	Routine Inspections.		Specials.	
		Number referred for Treatment.	Number requiring to be kept under observation, but not referred for Treatment.	Number referred for Treatment.	Number requiring to be kept under observation, but not referred for Treatment.
	Malnutrition	70	715	139	647
Skin.	Ringworm—				
	Scalp	28	4	75	2
	Body	10	1	67	1
	Scabies	24	...	83	...
	Impetigo	294	68	1,025	68
	Other Diseases (Non-Tubercular)	293	265	1,054	119
Eye.	Blepharitis	250	206	329	83
	Conjunctivitis	69	198	205	98
	Keratitis	3	...	28	3
	Corneal Opacities	5	26	11	15
	Defective Vision	1,630	1,558	1,232	596
	Squint	275	300	215	160
	Other Conditions	1	2	17	3
Ear.	Defective Hearing	93	142	144	78
	Otitis Media	153	38	353	33
	Other Ear Diseases	197	72	159	24
Nose and Throat.	Enlarged Tonsils	554	4,134	331	764
	Adenoids	97	290	86	125
	Enlarged Tonsils & Adenoids	496	642	645	337
	Other Conditions	...	...	...	...
	Enlarged Cervical Glands (Non-Tubercular)	34	3,436	103	531

TABLE II.—Continued.

	Defect or Disease.	Routine Inspections.		Specials.	
		Number referred for Treatment.	Number requiring to be kept under observation, but not referred for Treatment.	Number referred for Treatment.	Number requiring to be kept under observation, but not referred for Treatment.
	Defective Speech	9	196	8	60
	Teeth—Dental Diseases	3,580	3,315	725	706
Heart and Circulation	Heart Disease—				
	Organic	14	170	28	134
	Functional	2	1,061	9	601
	Anæmia	30	155	92	75
Lungs.	Bronchitis	121	646	196	218
	Other Non-Tubercular Diseases	13	221	25	48
Tuberculosis.	Pulmonary—				
	Definite	...	2	2	...
	Suspected	3	19	12	23
	Non-Pulmonary—				
	Glands	10	19	30	28
	Spine	1	2	2	1
	Hip	...	1	2	...
	Other Bones and Joints	...	4	3	2
	Skin	7	3	9	1
	Other Forms	...	...	...	...
Nervous System.	Epilepsy	4	6	14	9
	Chorea	3	16	66	45
	Other Conditions	10	22	17	19
Deformities	Rickets	30	254	24	166
	Spinal Curvature	19	113	19	61
	Other Forms	373	745	225	217
	Other Defects and Diseases ...	379	785	1,769	663

B.—No. of Individual Children found at Routine Medical Inspection to require Treatment (excluding Uncleanliness and Dental Diseases).

Group.	Number of Children.		Percentage of children found to require Treatment.
	Inspected.	Found to require Treatment.	
Code Groups—			
Entrants	13,034	1,141	8·75
Intermediates	13,728	1,744	12·70
Leavers	9,574	1,308	13·66
Total (Code Groups)... ...	36,336	4,193	11·53
Other routine inspections ...	...	...	...

…

…
781

… | …

…
687

T